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PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA—SOUTH ATLANTIC COAST OF THE UNITED STATES

Gill Cruise 3

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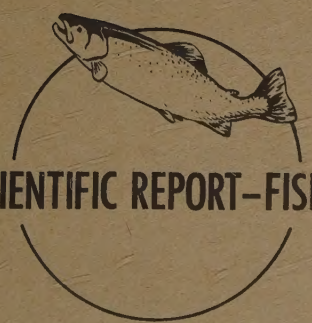

SPECIAL SCIENTIFIC REPORT–FISHERIES No. 210

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

EXPLANATORY NOTE

The series embodies results of investigations, usually of restricted scope, intended to aid or direct management or utilization practices and as guides for administrative or legislative action. It is issued in limited quantities for official use of Federal, State or cooperating agencies and in processed form for economy and to avoid delay in publication.

United States Department of the Interior, Fred A. Seaton, Secretary
U. S. Fish and Wildlife Service

PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES THEODORE N. GILL CRUISE 3

By

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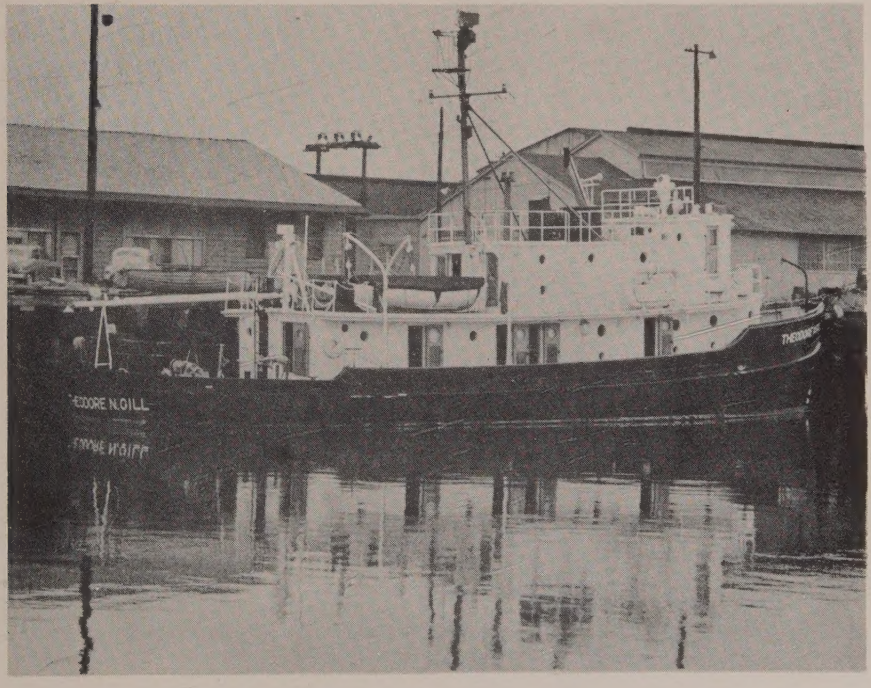

Special Scientific Report--Fisheries No. 210.

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CONTENTS

	Page
Introduction	1
Biological methods and procedures	1
Plankton tows	1
Narrative account of Cruise 3	1
Explanation of data sheets and tables	4
Oceanographic and chemical	4
Biological	8
Acknowledgments	9
Literature cited	9

LIST OF FIGURES

Page

Frontispiece.--M/V Theodore N. Gill at berth in Brunswick, Georgia

Figure 1.	Basic station plan	2
Figure 2.	Gulf III plankton sampler	3
Figure 3.	Track chart	5
Figure 4.	Bathythermograph cast	6
Figures 5-19.	Distribution of temperatures, salinities, and densities across the several sections of stations	56-66

LIST OF TABLES

Table 1.	Compass direction conversion table for wind, sea, and swell directions	10
Table 2.	Numerical weather codes - present weather	11
Table 3.	Cloud type	12
Table 4.	Cloud amount	12
Table 5.	Sea amount	12
Table 6.	Swell amount	13
Table 7.	Visibility	13
Table 8.	Plankton volumes (Gulf III and silk half-meter nets)	14
Table 9.	Plankton volumes (Gulf IA High-speed sampler)	15
Table 10.	Numbers of plankton organisms per cubic meter of water (half-meter net)	17 18
Table 11.	Numbers of plankton organisms per cubic meter of water (high-speed sampler)	27
Table 12.	Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)	30
Table 13.	List of the species of fish in dip-net, trolling, and stomach contents collections (D-dip net; T-trolling; S-stomach contents)	45
Table 14.	Numbers and species of fish taken by trolling	46
Table 15.	Numbers and species of fish taken by dip net	49

Oceanographic and chemical data by station

Regular stations	67
Standard station	180
Special stations	199

PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES THEODORE N. GILL CRUISE 3

This is the third in a series of reports presenting basic data from cruises of the Theodore N. Gill in waters off the South Atlantic Coast of the U. S.

Background of the investigations, objectives, procedures on station, and chemical, biological, and oceanographic methods and procedures were presented in the report for Cruise 1 (Anderson, Gehringer, and Cohen, 1956). The basic station plan is shown in figure 1.

BIOLOGICAL METHODS AND PROCEDURES

Plankton Tows

On Cruises 1 and 2 the plankton tows on station were made with a standard half-meter No. 1 silk net (Anderson, Gehringer, and Cohen, 1956).

Beginning with Cruise 3, plankton tows on station were taken with an all-metal half-meter sampler (fig. 2) designated as Gulf III (Arnold and Gehringer 1952), except during adverse sea conditions--when the standard half-meter silk net was used. The Gulf III sampler was towed obliquely to depths of 70 meters or less in the same manner as the silk net was towed on Cruises 1 and 2 except that towing speed was increased to 5 to 6 knots and maintained regardless of the angle of towing cable. When it was necessary to use the silk net -- during periods of adverse sea conditions which made towing the Gulf III unsafe--it was towed at a constant speed of 1 to 2 knots with no attempt to maintain a constant wire angle. In towing either the Gulf III or the silk net, additional cable was used to compensate for greater wire angles (wire angles recorded each minute as was done on Cruises 1 and 2).

Several improvements in the design of the Gulf III sampler were accomplished: the towing cable was attached by a chain bridle (fig. 2); a shock absorber, modified from a commercial design, was placed between the sampler and towing cable to reduce cable vibration and absorb surges when towing or handling; and the filtering unit (monel wire cloth, 50 mesh x .008", approximately equal to No. 1 silk) was fitted at the after end with a ring stand to permit standing the unit while washing plankton into the terminal bucket or cup. Water volumes strained were determined by the flow meter in the after meter housing.

Initiated on Cruise 3 also was use of a high-speed plankton sampler designated as Gulf IA (Arnold and Gehringer 1952) which was towed at the surface between stations at normal cruising speed of about 8 to 10 knots. The original design was modified by the addition of a heavy brass ring supported by struts over the exposed portion of the flow meter in the after end of the sampler to protect the meter during handling. Wet volumes of plankton were determined in the same manner as they were for half-meter net samples. In quantitative determination of major organisms the sample was adjusted to 100 ml., two 10-ml. portions examined, and total numbers and numbers-per-M^3 determined accordingly.

The Gulf II continuous plankton sampler was operated over most of the cruise route and the samples processed as on previous cruises.

NARRATIVE ACCOUNT OF CRUISE 3

The Theodore N. Gill departed from Brunswick, Georgia, on July 15, 1953, proceeding to special station 5 which was reached and occupied on July 16. Special stations 6, 7, and 8 were worked on July 17 and 18, and the vessel arrived at standard station on the 18th. Approximately 50 hours were spent on the standard station during which time 15 oceanographic casts were made--all to 1,000 meters. Bathythermograph observations, routine meteorological observations, and special plankton tows for deep scattering layer and other studies were also accomplished.

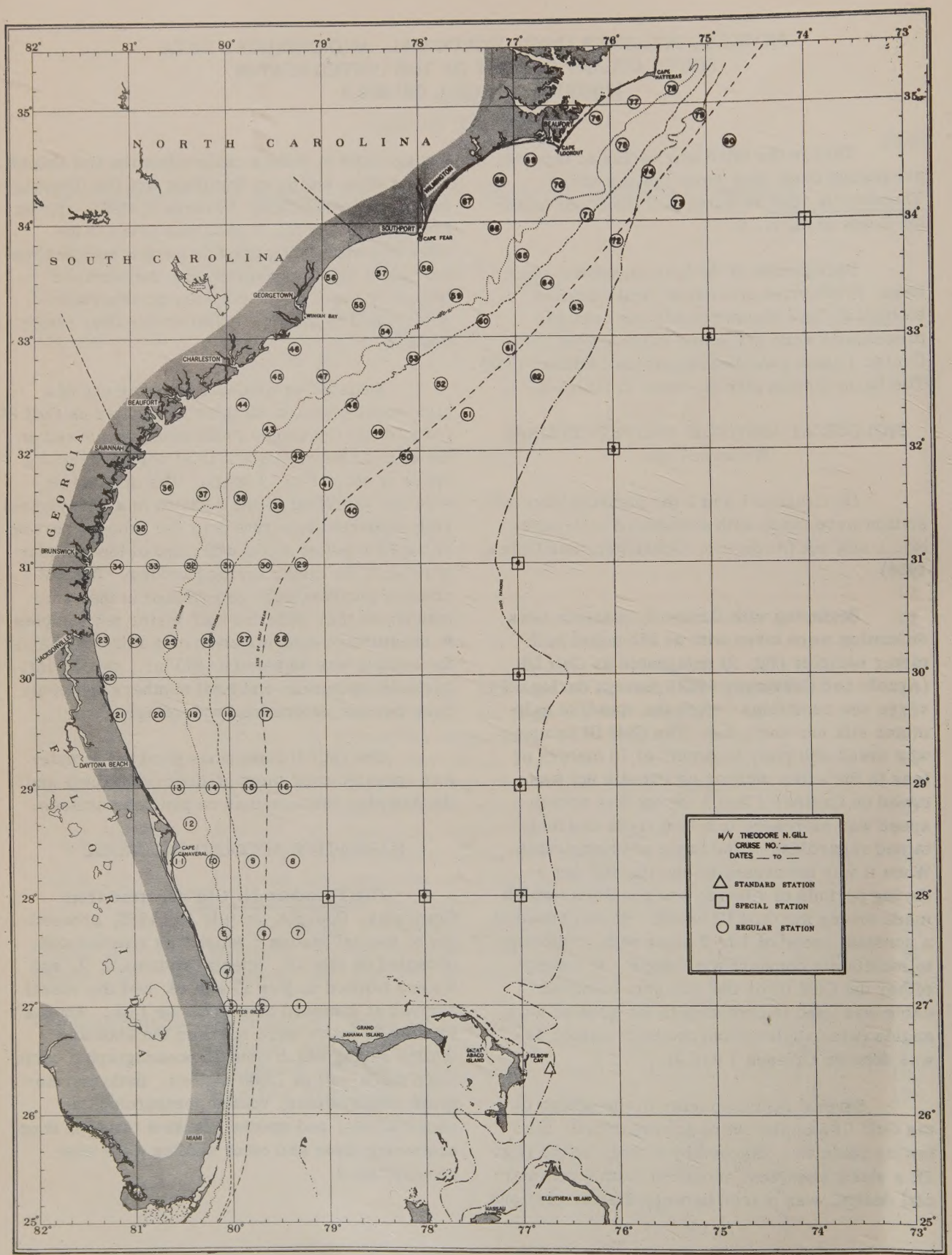

Figure 1.--Basic station plan.

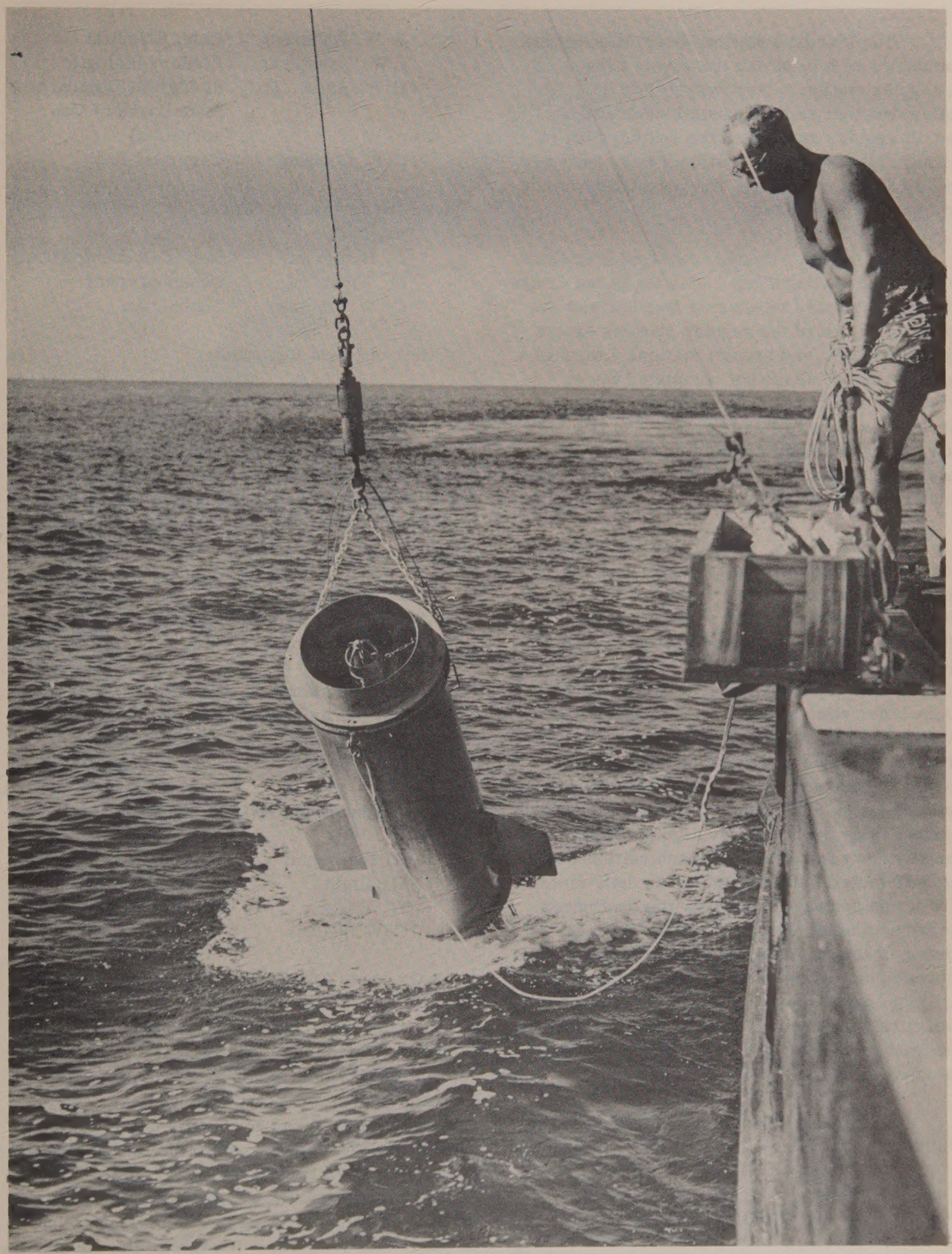

Figure 2.--Gulf III plankton sampler entering water at beginning of tow--cable looped to right from lower fore end of sampler is attached to depressor resting on rail of ship.

The standard station observations were completed on July 24 and the vessel proceeded to regular station 1, arriving on July 25. Excellent weather and sea conditions prevailed, and all regular stations of the southern leg (1 through 34) and special station 9 were occupied by July 30, at which time the vessel returned to Brunswick for supplies.

On August 4 the Gill departed Brunswick to begin the northern leg. This leg of the cruise was characterized by adverse weather and sea conditions. All of the regular stations except 73, 74, 78, 79, and special stations 1 through 4 were occupied--those not completed were missed as the result of a hurricane passing through the Cape Hatteras area. The last station was occupied on August 12 and the vessel returned to Brunswick on August 16. The cruise track is shown in figure 3.

Nansen casts, meteorological observations, and bathythermograph lowerings (when depth of water permitted), figure 4, were made on all regular and special stations. Oxygen determinations were performed aboard vessel. Water samples were collected on each station for analysis of salinity, but were limited to every other station for nitrate, carbohydrates, inorganic phosphate, total phosphorus, and proteins (absence of a chemist for several months caused such a backlog of samples from Cruises 1 and 2 that ample containers to sample entire Cruise 3 were not available). Oblique plankton tows were made on each station with the half-meter Gulf III sampler (or half-meter silk net on special occasions), the continuous plankton sampler was operated over a large portion of the cruise route, and tows were made between many of the stations with the Gulf IA high-speed sampler. Dip-netting was conducted both during the day and at night under spotlights, and feather or bone jigs were trolled between stations for capture of larger fish.

Scientific personnel participating in the cruise were:

I. Southern Leg

U.S. Fish and Wildlife Service and Cooperators:

W.W. Anderson	Chief Scientist
J.W. Gehringer	Fishery Biologist
G.F. Arata, Jr.	Biologist (Florida State Board of Conservation)
C.P. Goodwin	Chemical Aid

Navy Hydrographic Office:

G. Hammond	Senior Oceanographer
M. Light	Oceanographer
C. W. Backus	Technician

Office of Naval Research:

S. R. Galler	Head Biologist

Dr. Charles J. Fish, Director, Narragansett Marine Laboratory accompanied the southern leg of the cruise, and made special plankton observations while the vessel occupied standard station.

II. Northern Leg

U.S. Fish and Wildlife Service and Cooperators:

W.W. Anderson	Chief Scientist
J.W. Gehringer	Fishery Biologist
C.P. Goodwin	Chemical Aid
C.C. Bryant	Chemical Aid

Navy Hydrographic Office:

G. Hammond	Senior Oceanographer
M. Light	Oceanographer
W. Waters	Oceanographer
C.W. Backus	Technician

EXPLANATION OF DATA SHEETS AND TABLES

Oceanographic and Chemical

Each of the items appearing on the station data pages is explained below. All doubtful data are indicated and were not used in the construction of the curves from which the interpolated values (standard depth values) were derived. Observed values which were obviously false were omitted entirely. A dash in a table means that no value was available. Interpolations for standard depth values for temperature, salinity, sigma-t,

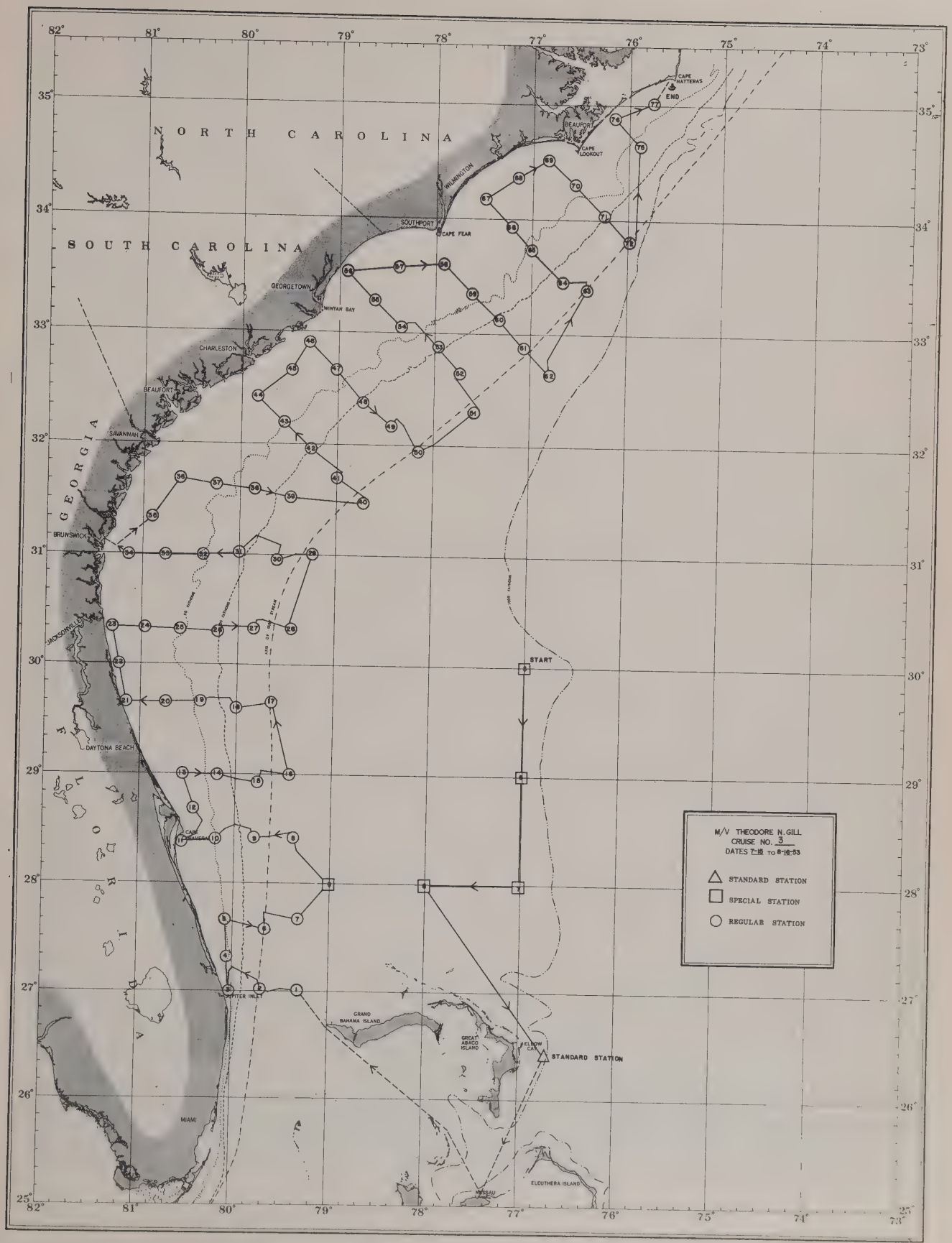

Figure 3.--Track chart.

Figure 4.--Retrieving bathythermograph at end of cast.

and oxygen are IBM calculations; those for the chemical constituents were derived from straight lines between observed values.

The profiles of salinity, temperature, and density were prepared from these data, and appear as figures 5-19.

1. Cruise Number. The first cruise over the established station pattern (fig. 1) was numbered Gill 1, and subsequent cruises, Gill 2 through Gill 9 (only Gill 3 is covered by the present report).

2. Station Number. Stations are numbered consecutively, starting with one, at the beginning of each cruise. The station pattern and numbers as shown in figure 1 were maintained on each cruise. If a station or series of stations was not occupied, these station numbers are omitted. Regular stations have numbers only; standard and special stations are specifically indicated.

3. Date. Month, day, and year are given.

4. Latitude and Longitude. The position of the station is given in degrees and minutes.

5. Time. Given in Greenwich Mean Time and is that hour nearest to the start of the first cast.

6. Depth. Is the observed uncorrected sonic sounding for the station, recorded in meters.

7. Wind. Wind speed is given in meters per second. Direction from which the wind blows is coded in degrees true to the nearest ten degrees. The last zero is omitted. North is 36 on this scale and calm is 00. See table 1, "Compass Direction Conversion Table for Wind, Sea, and Swell Directions."

8. Barometer. The barometric pressure is coded in millibars, neglecting the 900 or 1,000. Thus 996 millibars is coded as 96 and 1,008 millibars is coded as 08.

9. Air Temperature. Dry bulb and wet bulb temperatures are entered to the nearest tenth of a degree (centigrade).

10. Humidity. The percent of humidity is coded directly.

11. Weather. Weather is coded as indicated in table 2, "Numerical Weather Codes--Present Weather."

12. Clouds. Cloud type and amount are coded as indicated in table 3, "Cloud Type"; and table 4, "Cloud Amount."

13. Sea. Sea direction and amount are coded as indicated in table 5, "Sea Amount"; and table 1.

14. Swell. Swell directions and amount are as indicated in table 6, "Swell Amount"; and table 1.

15. Visibility. Visibility is coded as indicated in table 7, "Visibility."

16. Water Transparency. Given as meters to which a Secchi disc is visible.

Subsurface Observations

1. Sample Depth. Observed (actual) depth of each sample is given in meters. Interpolated values at standard depths are also given. The standard depths in meters are: 0, 10, 20, 30, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800, 1,000, 1,200, 1,500, 2,000, 2,500, 3,000, and thence every 1,000 meters.

2. Temperature. The centigrade temperature is given in degrees and hundredths.

3. Salinity. Salinity is given in parts per thousand to two decimal places.

4. Sigma-t. To convert to density divide by 1,000 and add 1. Thus, a sigma-t value of 22.35 converts to a density of 1.02235.

5. Dissolved Oxygen. These values are given in milliliters per liter to two decimal places.

6. Total Phosphorus. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

7. Inorganic Phosphate. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

8. Nitrate-nitrite. These values are given in microgram atoms per liter to the nearest 0.5 of a unit.

9. Carbohydrates (Arabinose). These values are given in terms of milligrams per liter to the nearest 0.1 of a unit. Collier et al. (1953) presented a technique for estimating certain elements of the organic materials in sea water which react to the test for carbohydrates. The carbohydrate values are given as arabinose equivalents, and are not necessarily the actual concentrations of carbohydrate substances.

10. Proteins (Tyrosine). These values are given to the nearest 0.1 of a unit as milligrams per liter of protein material in sea water, which reacts to the test for tyrosine.

Biological

1. Plankton volumes (Gulf III and silk half-meter nets), table 8. The position given is that at beginning of the tow. The depth of the haul is given from 0 to the greatest depth reached. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for Cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

2. Plankton volumes (Gulf IA High-speed sampler), table 9. The position given is that at the center of the tow. All tows were made at the surface. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for Cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

3. Numbers of plankton organisms per cubic meter of water (half-meter net), table 10. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods in report for Cruise 1. Counts are given for major groups as indicated.

4. Numbers of plankton organisms per cubic meter of water (high-speed sampler), table 11. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods. Counts are given for major groups as indicated.

5. Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), table 12. Description of this sampler, its use, and methods of calculating numbers of organisms were given under methods in report for Cruise 1. Counts are given by compartment for major groups as indicated.

6. List of the species of fish in dip-net, trolling, and stomach contents collections (D-dip net; T-trolling; S-stomach content), table 13. The species are listed in alphabetical order, followed by symbols indicating method of capture.

7. Numbers and species of fish taken by trolling, table 14. The stage of gonad development is based on International Council classifications of gonad maturity for the herring (International Councils Rapports et Proces-Verbaux des Reunions, Vol. LXXIV, pp. 117, March 1931). The scale is only a guide to general classifications and must be treated as such.

This scale follows:

Stage I. Virgin individuals. Very small sexual organs close under vertebral column. Wine-colored torpedo-shaped ovaries about 2-3 cm. long and 2-3 mm. thick. Eggs invisible to naked eye. Whitish or grayish brown knife-shaped testes 2-3 cm. long and 2-3 mm. broad.

Stage II. Maturing virgins or recovering spents. Ovaries somewhat longer than half the length of ventral cavity, about 1 cm. diameter. Eggs small but visible to naked eye. Milt whit-

ish, somewhat bloodshot, same size as ovaries, but still thin and knife-shaped.

Stage III. Sexual organs more swollen, occupying about half of ventral cavity.

Stage IV. Ovaries and testes nearly filling 2/3 of ventral cavity. Eggs not transparent, milt whitish, swollen.

Stage V. Sexual organs filling ventral cavity. Ovaries with some large transparent eggs. Milt white, not yet running.

Stage VI. Roe and milt running (spawning).

Stage VII. Spents. Ovaries slack with residual eggs. Testes baggy, bloodshot. Doubtful cases are indicated by quoting two stages e.g. "St. I-II, St. VII-II," etc.

8. Numbers and species of fish taken by dip net, table 15. There is shown, by family, the genera and species taken. Numbers of specimens from each station are given in parentheses, followed by the approximate size or size range of standard length, in millimeters.

ACKNOWLEDGMENTS

Acknowledgment is made to the following agencies and individuals for contributions in securing and processing the material presented. To the Navy Hydrographic Office for their cooperation in planning and executing the field program and for processing the physical oceanographic data. To the Office of Naval Research, and Dr. Sidney R. Galler in particular, for help in planning and executing the field program. To the Georgia Game and Fish Commission for their cooperation in the biological and chemical studies; through Frank T. Knapp, biologist and Joseph E. Moore, chemist (now a member of U.S. Fish and Wildlife Service staff). To the Florida State Board of Conservation (through the Marine Laboratory of the University of Miami) for their cooperation in the biological studies, through George F. Arata, Jr., biologist. To Dean F. Bumpus of the Woods Hole Oceanographic Institution for preparation of the salinity, temperature, and density profiles which appear as figures 5-19.

From our own staff special recognition is due Frederick H. Berry for identification of dip-net and stomach content material, to Hugh M. Fields for plankton organism counts, and to Edward Cohen (formerly chemist) for chemical determinations and assistance in assembling the physical and chemical data. We appreciate the assistance of other members of the staff who aided in one way or another: Charles P. Goodwin, Clyde C. Bryant, Herbert R. Gordy, Melba C. Wilson, Joy T. Blanton, Charlie B. Casper, and Elizabeth H. Swindell. Acknowledgment is also made of the excellent cooperation of crew members of the Theodore N. Gill, and Captain Mauritz C. Fredricksen in particular.

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Table 1.--Compass direction conversion table for wind, sea, and swell directions

Code	Direction
00	Calm
01	5° to 14°
02	15° to 24° NNE
03	25° to 34°
04	35° to 44°
05	45° to 54° NE
06	55° to 64°
07	65° to 74° ENE
08	75° to 84°
09	85° to 94° E
10	95° to 104°
11	105° to 114° ESE
12	115° to 124°
13	125° to 134°
14	135° to 144° SE
15	145° to 154°
16	155° to 164° SSE
17	165° to 174°
18	175° to 184° S
19	185° to 194°
20	195° to 204° SSW
21	205° to 214°
22	215° to 224°
23	225° to 234° SW
24	235° to 244°
25	245° to 254° WSW
26	255° to 264°
27	265° to 274° W
28	275° to 284°
29	285° to 294° WNW
30	295° to 304°
31	305° to 314°
32	315° to 324° NW
33	325° to 334°
34	335° to 344° NNW
35	345° to 354°
36	355° to 4° N

TABLE II NUMERICAL WEATHER CODES—PRESENT WEATHER

00 Cloud development NOT observed or NOT observable during past hour.	**01** Clouds generally dissolving or becoming less developed during past hour.	**02** State of sky on the whole unchanged during past hour.	**03** Clouds generally forming or developing during past hour.	**04** Visibility reduced by smoke.	**05** Haze.	**06** Widespread dust in suspension in the air, NOT raised by wind, at time of observation.	**07** Dust or sand raised by wind, at time of observation.	**08** Well developed dust devil(s) within past hour.	**09** Duststorm or sandstorm within sight of or at station during past hour.
10 Light fog.	**11** Patches of shallow fog at station, NOT deeper than 6 feet on land.	**12** More or less continuous shallow fog at station, NOT deeper than 6 feet on land.	**13** Lightning visible, no thunder heard.	**14** Precipitation within sight, but NOT reaching the ground.	**15** Precipitation within sight, reaching the ground, but distant from station.	**16** Precipitation within sight, reaching the ground, near to but NOT at station.	**17** Thunder heard, but no precipitation at the station.	**18** Squall(s) within sight during past hour.	**19** Funnel cloud(s) within sight during past hour.
20 Drizzle (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**21** Rain (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**22** Snow (NOT falling as showers) during past hour, but NOT at time of observation.	**23** Rain and snow (NOT falling as showers) during past hour, but NOT at time of observation.	**24** Freezing drizzle or freezing rain (NOT falling as showers) during past hour, but NOT at time of observation.	**25** Showers of rain during past hour, but NOT at time of observation.	**26** Showers of snow, or of rain and snow, during past hour, but NOT at time of observation.	**27** Showers of hail, or of hail and rain, during past hour, but NOT at time of observation.	**28** Fog during past hour, but NOT at time of observation.	**29** Thunderstorm (with or without precipitation) during past hour, but NOT at time of observation.
30 Slight or moderate duststorm or sandstorm has decreased during past hour.	**31** Slight or moderate duststorm or sandstorm no appreciable change during past hour.	**32** Slight or moderate duststorm or sandstorm has increased during past hour.	**33** Severe duststorm or sandstorm, has decreased during past hour.	**34** Severe duststorm or sandstorm, no appreciable change during past hour.	**35** Severe duststorm or sandstorm, has increased during past hour.	**36** Slight or moderate drifting snow, generally low.	**37** Heavy drifting snow, generally low.	**38** Slight or moderate drifting snow, generally high.	**39** Heavy drifting snow, generally high.
40 Fog at distance at time of observation, but NOT at station during past hour.	**41** Fog in patches.	**42** Fog, sky discernible, has become thinner during past hour.	**43** Fog, sky NOT discernible, has become thinner during past hour.	**44** Fog, sky discernible, no appreciable change during past hour.	**45** Fog, sky NOT discernible no appreciable change during past hour.	**46** Fog, sky discernible, has begun or become thicker during past hour.	**47** Fog, sky NOT discernible, has begun or become thicker during past hour.	**48** Fog, depositing rime, sky discernible.	**49** Fog, depositing rime, sky not discernible.
50 Intermittent drizzle (NOT freezing) slight at time of observation.	**51** Continuous drizzle (NOT freezing) slight at time of observation.	**52** Intermittent drizzle (NOT freezing) moderate at time of ob.	**53** Continuous drizzle (NOT freezing), moderate at time of ob.	**54** Intermittent drizzle (NOT freezing), thick at time of observation.	**55** Continuous drizzle (NOT freezing), thick at time of observation.	**56** Slight freezing drizzle.	**57** Moderate or thick freezing drizzle.	**58** Drizzle and rain, slight.	**59** Drizzle and rain, moderate or heavy.
60 Intermittent rain (NOT freezing), slight at time of observation.	**61** Continuous rain (NOT freezing), slight at time of observation.	**62** Intermittent rain (NOT freezing), moderate at time of ob.	**63** Continuous rain (NOT freezing), moderate at time of observation.	**64** Intermittent rain (NOT freezing), heavy at time of observation.	**65** Continuous rain (NOT freezing), heavy at time of observation.	**66** Slight freezing rain.	**67** Moderate or heavy freezing rain.	**68** Rain or drizzle and snow, slight.	**69** Rain or drizzle and snow, moderate or heavy
70 Intermittent fall of snowflakes, slight at time of observation.	**71** Continuous fall of snowflakes, slight at time of observation.	**72** Intermittent fall of snowflakes, moderate at time of observation.	**73** Continuous fall of snowflakes, moderate at time of observation.	**74** Intermittent fall of snowflakes, heavy at time of observation.	**75** Continuous fall of snowflakes, heavy at time of observation.	**76** Ice needles (with or without fog).	**77** Granular snow (with or without fog).	**78** Isolated starlike snow crystals (with or without fog).	**79** Ice pellets (sleet, U. S. definition).
80 Slight rain shower(s).	**81** Moderate or heavy rain shower(s).	**82** Violent rain shower(s).	**83** Slight shower(s) of rain and snow mixed.	**84** Moderate or heavy shower(s) of rain and snow mixed.	**85** Slight snow shower(s).	**86** Moderate or heavy snow shower(s).	**87** Slight shower(s) of soft or small hail with or without rain or rain and snow mixed.	**88** Moderate or heavy shower(s) of soft or small hail with or without rain or rain and snow mixed.	**89** Slight shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.
90 Moderate or heavy shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.	**91** Slight rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**92** Moderate or heavy rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**93** Slight snow or rain and snow mixed or hail at time of observation.; thunderstorm during past hour, but not at time of observations.	**94** Mod. or heavy snow, or rain and snow mixed or hail at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**95** Slight or mod. thunderstorm without hail, but with rain and/or snow at time of observation.	**96** Slight or moderate thunderstorm, with hail at time of observation.	**97** Heavy thunderstorm, without hail, but with rain and/or snow at time of observation.	**98** Thunderstorm combined with duststorm or sandstorm at time of observation.	**99** Heavy thunderstorm with hail at time of observation.

Table 3.--Cloud type

Code	
0	Stratus or Fractostratus
1	Cirrus
2	Cirrostratus
3	Cirrocumulus
4	Altocumulus
5	Altostratus
6	Stratuscumulus
7	Nimbostratus
8	Cumulus or Fractocumulus
9	Cumulonumbus

Table 4.--Cloud amount

Code	
0	No clouds
1	Less than 1/10 or 1/10
2	2/10 and 3/10
3	4/10
4	5/10
5	6/10
6	7/10 and 8/10
7	9/10 and 9/10 plus
8	10/10
9	Sky obscured

Table 5.--Sea amount

Code	Approximate Height (feet)	Description
0	------	Calm
1	Less than 1	Smooth
2	1 to 3	Slight
3	3 to 5	Moderate
4	5 to 8	Rough
5	8 to 12	Very rough
6	12 to 20	High
7	20 to 40	Very high
8	40 and over	Mountainous
9	------	Very rough confused sea

Table 6.--Swell amount

Code	Approximate Height (feet)	Description		Approximate Length (feet)
0	----	No swell		----
1	1 to 6	Low swell	Short or Average	0 to 600
2			Long	Above 600
3	6 to 12	Moderate	Short	0 to 300
4			Average	300 to 600
5			Long	Above 600
6	Greater than 12	High	Short	0 to 300
7			Average	300 to 600
8			Long	Above 600
9	----	Confused		----

Table 7. Visibility

Code		
0	Dense fog	50 yards
1	Thick fog	200 yards
2	Fog	400 yards
3	Moderate fog	1000 yards
4	Thin fog or mist	1 mile
5	Visibility poor	2 miles
6	Visibility moderate	5 miles
7	Visibility good	10 miles
8	Visibility very good	30 miles
9	Visibility excellent	Over 30 miles

Table 8.--Plankton volumes (Gulf III and silk half-meter nets)

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
1	27° 00'	79° 18'	July 25	1228	1300	857.8	0-56	0.029
2	27° 01'	79° 41'	July 25	1615	1649	357.0	0-56	0.098
3	27° 00'	80° 04'	July 25	2040	2100	195.3	Surface	0.333
4	27° 20'	80° 04'	July 25	2335	2358	158.9	0-11	0.189
5	27° 40'	80° 04'	July 26	0236	0301	733.4	0-27	0.034
6	27° 34'	79° 39'	July 26	0622	0653	726.2	0-60	0.028
7	27° 40'	79° 19'	July 26	0953	1031	281.8	0-65	0.089
8	28° 19'	79° 26'	July 26	1814	1848	769.0	0-52	0.039
9	28° 20'	79° 48'	July 26	2145	2216	751.3	0-56	0.080
10	28° 20'	80° 10'	July 27	0050	0117	138.6	0-20	0.216
11	28° 20'	80° 33'	July 27	0323	0345	139.5	0-6	0.430
12	28° 41'	80° 25'	July 27	0707	0728	103.2	0-10	0.581
13	29° 00'	80° 32'	July 27	0936	0957	270.7	0-13	0.259
14	29° 00'	80° 11'	July 27	1205	1235	119.5	0-44	0.335
15	28° 56'	79° 46'	July 27	1656	1734	383.4	0-65	0.091
16	29° 00'	79° 26'	July 27	2034	2104	308.7	0-56	0.146
17	29° 36'	79° 38'	July 28	0110	0135	299.5	0-56	0.117
18	29° 36'	80° 00'	July 28	0431	0456	300.5	0-48	0.200
19	29° 40'	80° 22'	July 28	0701	0724	140.9	0-28	0.568
20	29° 40'	80° 45'	July 28	0949	1011	183.3	0-17	0.464
21	29° 40'	81° 08'	July 28	1216	1238	202.1	0-10	0.198
22	30° 00'	81° 14'	July 28	1458	1521	183.1	0-5	0.328
23	30° 20'	81° 19'	July 28	1724	1745	174.5	0-10	0.286
24	30° 20'	80° 58'	July 28	2000	2023	131.2	0-25	-
25	30° 20'	80° 35'	July 28	2246	2309	125.8	0-27	0.517
26	30° 18'	80° 12'	July 29	0201	0226	177.8	0-52	0.562
27	30° 19'	79° 50'	July 29	0523	0548	281.9	0-52	0.124
28	30° 20'	79° 27'	July 29	0831	0856	327.6	0-44	0.092
29	30° 59'	79° 15'	July 29	1318	1343	313.9	0-44	0.112
30	30° 57'	79° 37'	July 29	1845	1915	-	Surface	-
31	31° 02'	80° 00'	July 29	2257	2319	219.1	0-13	0.137
32	31° 00'	80° 23'	July 30	0150	0213	235.7	0-24	0.339
33	31° 00'	80° 46'	July 30	0440	0506	54.8	0-22	0.639
34	31° 00'	81° 09'	July 30	0655	0715	179.7	Surface	0.306
35	31° 20'	80° 52'	Aug. 4	1915	1936	114.5	0-7	0.306
36	31° 40'	80° 37'	Aug. 4	2309	2330	131.5	0-7	0.608
37	31° 38'	80° 14'	Aug. 5	0141	0203	221.7	0-17	0.496
38	31° 35'	79° 51'	Aug. 5	0425	0452	316.4	0-26	0.205
39	31° 32'	79° 28'	Aug. 5	0746	0813	226.1	0-65	0.509
40	31° 30'	78° 42'	Aug. 5	1225	1249	291.1	0-65	0.086
41	31° 41'	79° 01'	Aug. 5	1630	1654	283.1	0-52	0.106
42	31° 57'	79° 16'	Aug. 5	2017	2047	-	Surface	-
44	32° 26'	79° 50'	Aug. 6	0150	0211	124.8	0-7	0.641
45	32° 40'	79° 32'	Aug. 6	0417	0439	134.9	0-8	0.704
46	32° 54'	79° 16'	Aug. 6	0638	0700	121.4	0-6	0.741

Table 8.--Plankton volumes (Gulf III and silk half-meter nets), cont'd

Sta.	Position N. Lat.	Position W. Long.	(1953) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
47	32° 40'	79° 00'	Aug. 6	0914	0935	213.6	0-20	0.421
48	32° 24'	78° 44'	Aug. 6	1213	1237	246.7	0-77	0.142
49	32° 12'	78° 26'	Aug. 6	1545	1607	193.0	0-86	0.233
50	31° 57'	78° 09'	Aug. 6	2017	2041	337.0	0-70	0.148
51*	32° 19'	77° 34'	Aug. 7	0040	0100	-	Surface	-
52*	32° 35'	77° 46'	Aug. 7	0513	0533	-	Surface	-
53*	32° 54'	77° 58'	Aug. 7	0945	1005	-	Surface	-
54*	33° 03'	78° 21'	Aug. 7	1313	1333	-	Surface	-
55	33° 17'	78° 37'	Aug. 7	1611	1632	124.6	0-11	0.321
56	33° 31'	78° 56'	Aug. 7	1800	1820	136.6	Surface	0.842
57	33° 34'	78° 25'	Aug. 7	2117	2137	54.4	Surface	0.919
58*	33° 36'	77° 55'	Aug. 8	0005	0025	-	Surface	-
59**	33° 22'	77° 37'	Aug. 10	1138	1200	-	0-10	-
60**	33° 07'	77° 20'	Aug. 10	1518	1543	222.0	0-50	0.293
61**	32° 54'	77° 04'	Aug. 10	1904	1929	197.6	0-44	0.228
63**	33° 24'	76° 25'	Aug. 11	0422	0446	436.8	0-31	0.183
64	33° 29'	76° 40'	Aug. 11	0816	0840	261.2	0-52	0.153
65	33° 44'	77° 00'	Aug. 11	1122	1146	168.4	0-22	0.297
66	33° 57'	77° 13'	Aug. 11	1355	1417	80.4	0-19	0.435
67	34° 11'	77° 30'	Aug. 11	1633	1654	157.9	0-7	0.443
68	34° 22'	77° 09'	Aug. 11	1913	1934	132.5	0-11	0.415
69	34° 32'	76° 49'	Aug. 11	2202	2223	201.6	0-10	0.322
70	34° 18'	76° 32'	Aug. 12	0034	0056	141.1	0-20	0.354
71	34° 04'	76° 15'	Aug. 12	0320	0345	145.4	0-77	0.138
72**	33° 50'	75° 58'	Aug. 12	0703	0731	336.7	0-47	0.193
75**	34° 36'	75° 53'	Aug. 12	1303	1325	428.2	0-19	0.082
76**	34° 53'	76° 09'	Aug. 12	1603	1625	203.4	0-11	0.197
77**	35° 01'	75° 45'	Aug. 12	1903	1924	185.4	0-10	0.162
Spc. 5	30° 00'	77° 00'	July 16	2310	2343	404.2	0-56	0.050
" 6	29° 00'	77° 00'	July 17	0810	0844	324.2	0-60	0.046
" 7	28° 00'	77° 00'	July 17	1754	1826	450.7	0-52	0.033
" 8	28° 00'	78° 00'	July 18	0157	0233	347.7	0-56	0.086
" 9	27° 59'	79° 00'	July 26	1346	1423	425.0	0-48	0.047

* Half-meter No. 5 silk net
** Half-meter No. 1 silk net

Table 9.--Plankton volumes (Gulf IA High-speed sampler)

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1953) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
1	28° 03'	77° 26'	July 17	1845	2245	46.8	0.011
2	27° 08'	77° 17'	July 18	0855	1255	44.0	0.034
3	26° 37'	76° 56'	July 18	1301	1650	40.2	0.012
4	27° 01'	79° 33'	July 25	1329	1515	23.8	0.021
5	27° 10'	79° 56'	July 25	1710	1920	24.3	0.062
6	27° 10'	80° 03'	July 25	2125	2250	15.9	0.189
7	27° 31'	80° 04'	July 26	0010	0159	21.4	0.093
8	27° 37'	79° 52'	July 26	0305	0515	23.9	0.084
9	27° 42'	79° 32'	July 26	0655	0835	19.9	0.025
10	28° 09'	79° 16'	July 26	1440	1645	24.7	0.040
11	28° 21'	79° 39'	July 26	1857	2025	36.3	0.014
12	28° 26'	80° 01'	July 26-27	2237	0005	*	-
13	28° 20'	80° 22'	July 27	0140	0245	*	-
14	28° 27'	80° 23'	July 27	0345	0605	*	-
15	28° 51'	80° 29'	July 27	0730	0915	*	-
16	29° 00'	80° 12'	July 27	1058	1224	*	-
17	31° 38'	80° 26'	Aug. 4-5	2335	0100	14.5	0.276
18	31° 36'	80° 05'	Aug. 5	0210	0350	19.5	0.154
19	31° 33'	79° 40'	Aug. 5	0500	0620	14.1	0.319
20	31° 33'	79° 03'	Aug. 5	0820	1100	30.3	0.016
21	31° 38'	78° 52'	Aug. 5	1305	1530	24.6	0.041
22	31° 52'	79° 06'	Aug. 5	1700	1850	16.2	0.123
23	32° 32'	79° 42'	Aug. 6	0215	0340	15.0	0.133
24	33° 26'	78° 49'	Aug. 7	1635	1745	11.9	0.420

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net)

Station Number	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
Protozoa	5.9	16.7	2.4	12.8	0.3	4.0	53.4	8.8
Coelenterata	7.2	7.7	0.3	2.0	1.8	2.2	8.7	3.2
Chaetognatha	3.8	10.5	6.4	6.5	1.6	1.4	7.4	1.4
Misc. Worms	0.7	1.1	0.3	1.1	0.2	0.4	1.8	0.7
Copepoda	81.3	121.7	539.5	326.9	44.2	33.0	129.4	43.0
Ostracoda	1.2	1.6	1.1	0.6	1.0	0.3	2.8	1.3
Mysidacea	-	0.1	0.2	20.0	0.1	-	-	<0.1
Amphipoda	0.2	1.0	470.0	22.3	0.2	0.4	1.0	0.4
Isopoda	<0.1	<0.1	-	-	-	-	-	<0.1
Stomatopoda	<0.1	-	1.6	1.8	<0.1	-	0.3	-
Euphausiacea	1.6	4.6	0.2	-	0.3	3.3	4.5	2.6
Shrimp	0.6	1.8	71.6	54.7	0.8	0.5	1.9	0.7
Crabs	0.4	0.2	121.6	104.1	0.9	0.1	1.1	0.2
Misc. Crustaceans	0.1	0.6	45.6	46.7	0.1	0.2	0.8	0.3
Pteropoda	0.2	1.3	0.5	1.8	0.2	0.2	1.5	0.4
Misc. Mollusca	1.2	5.3	2.8	11.6	0.8	1.3	3.2	2.0
Larvacea	5.9	10.0	7.2	68.0	1.2	3.8	35.4	10.2
Misc. Tunicata	0.6	1.2	0.2	1.1	0.3	0.2	2.5	0.2
Leptocardia	0.02	0.02	<0.01	0.02	-	<0.01	0.01	0.01
Misc. Organisms	0.6	2.3	0.7	1.9	0.5	0.3	4.3	1.2
Subtotal	111.7	187.8	1272.2	683.9	54.6	51.6	260.0	76.8
Fish Eggs	<0.01	<0.01	8.88	27.85	0.80	<0.01	0.02	0.01
Fish Larvae	0.45	0.96	2.49	14.06	0.15	0.31	1.76	0.43
Total	112.2	188.8	1283.6	725.8	55.6	51.9	261.8	77.2

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 9	Reg. 10	Reg. 11	Reg. 12	Reg. 13	Reg. 14	Reg. 15	Reg. 16
Protozoa	28.5	4.2	3.4	45.2	101.8	196.7	38.7	31.6
Coelenterata	2.8	3.8	0.9	0.4	2.1	7.5	5.5	14.4
Chaetognatha	8.2	6.5	63.8	21.3	47.8	37.2	4.6	4.4
Misc. Worms	0.8	1.4	0.6	0.6	0.1	1.3	1.8	2.6
Copepoda	75.0	644.0	778.1	790.9	127.6	424.0	73.0	104.4
Ostracoda	0.8	8.5	0.7	7.8	1.0	1.5	1.6	6.0
Mysidacea	-	1.4	50.2	1.0	-	0.7	<0.1	<0.1
Amphipoda	0.6	0.7	0.4	0.2	0.2	16.0	0.6	0.6
Isopoda	-	-	0.1	-	-	-	-	<0.1
Stomatopoda	-	1.2	3.7	3.3	4.6	0.7	-	0.1
Euphausiacea	2.9	-	-	-	0.1	1.7	9.4	13.7
Shrimp	0.8	48.9	218.8	39.0	23.5	12.9	1.0	1.6
Crabs	0.2	76.5	422.5	150.0	88.5	30.2	0.8	0.5
Misc. Crustaceans	0.4	42.8	2.2	1.0	23.5	37.2	0.8	0.2
Pteropoda	1.0	2.7	1.3	0.4	-	4.0	1.0	1.4
Misc. Mollusca	3.0	5.3	44.1	5.0	3.8	5.7	2.4	3.8
Larvacea	10.4	12.0	56.2	67.8	11.7	101.1	6.8	49.4
Misc. Tunicata	0.4	1.2	0.1	1.6	-	6.2	0.8	0.4
Leptocardia	0.03	0.24	0.42	0.19	0.62	0.24	0.01	0.03
Misc. Organisms	1.4	5.2	0.4	65.7	181.7	6.4	9.4	8.2
Subtotal	137.2	866.5	1647.9	1201.4	618.6	893.2	158.3	243.5
Fish Eggs	0.01	11.71	1.50	22.22	8.46	2.49	0.01	<0.01
Fish Larvae	0.87	1.67	9.23	4.09	4.26	3.05	0.95	1.36
Total	138.1	879.9	1658.6	1227.7	631.3	898.8	159.3	244.9

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 17	Reg. 18	Reg. 19	Reg. 20	Reg. 21	Reg. 22	Reg. 23	Reg. 24
Protozoa	48.8	91.0	69.2	54.4	391.3	108.8	111.8	0.8
Coelenterata	8.9	7.0	27.1	13.9	0.9	2.2	1.8	10.1
Chaetognatha	4.5	11.3	16.2	61.3	221.3	38.2	121.5	59.8
Misc. Worms	3.0	2.7	3.0	1.0	4.9	2.4	1.6	0.2
Copepoda	126.0	208.3	662.0	276.4	583.2	589.3	526.0	780.4
Ostracoda	2.2	0.5	1.1	0.2	-	-	-	6.2
Mysidacea	-	-	0.3	-	-	-	-	1.8
Amphipoda	0.7	1.7	4.1	18.5	-	-	0.1	30.7
Isopoda	-	-	-	0.3	-	0.1	-	-
Stomatopoda	0.1	0.1	2.4	12.3	5.4	8.3	3.2	2.6
Euphausiacea	6.3	4.8	2.3	-	-	-	-	-
Shrimp	2.2	1.9	7.0	48.6	43.0	40.5	72.9	163.2
Crabs	1.0	1.1	13.9	50.9	29.4	57.9	31.6	126.0
Misc. Crustaceans	0.7	0.5	0.7	297.2	315.7	35.9	2.9	27.5
Pteropoda	1.3	1.7	2.4	15.0	-	10.3	-	1.4
Misc. Mollusca	12.7	6.3	6.1	15.0	0.8	2.2	3.8	5.0
Larvacea	60.9	50.8	85.8	0.8	3.2	56.7	131.2	74.3
Misc. Tunicata	0.3	1.1	54.2	114.5	0.3	0.1	-	97.0
Leptocardia	0.01	-	0.01	0.65	22.08	0.01	-	0.97
Misc. Organisms	8.5	12.0	63.2	81.0	2517.6	1344.2	3407.8	2.0
Subtotal	288.1	403.3	1021.0	1066.0	4139.1	2297.1	4416.2	1390.0
Fish Eggs	<0.01	0.01	6.87	6.80	13.45	1.22	1.21	13.12
Fish Larvae	1.10	2.15	6.99	7.25	3.83	1.36	4.42	23.41
Total	289.2	405.5	1034.9	1076.0	4156.4	2299.7	4421.8	1426.5

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 25	Reg. 26	Reg. 27	Reg. 28	Reg. 29	Reg. 30*	Reg. 31	Reg. 32
Protozoa	33.7	130.0	60.9	63.4	62.8	300	92.9	68.4
Coelenterata	6.2	31.0	8.6	6.7	7.6	1020	6.4	16.2
Chaetognatha	48.9	19.3	5.8	5.3	5.4	820	5.4	54.0
Misc. Worms	0.6	1.2	2.6	2.0	1.4	280	0.6	0.9
Copepoda	687.6	769.1	122.6	88.6	120.2	46428	367.7	427.2
Ostracoda	22.7	2.6	1.3	1.7	3.0	1080	0.2	3.6
Mysidacea	2.5	-	0.1	-	-	120	0.7	0.2
Amphipoda	45.5	4.2	1.1	0.5	0.6	460	2.0	34.2
Isopoda	0.2	-	-	-	-	40	-	-
Stomatopoda	4.0	0.8	-	0.1	0.1	20	3.0	2.2
Euphausiacea	0.2	7.8	4.9	3.6	3.2	60	0.4	-
Shrimp	20.2	32.2	1.6	1.3	2.7	840	5.0	8.4
Crabs	27.0	4.2	0.8	0.4	0.5	60	9.0	20.7
Misc. Crustaceans	1.7	39.3	0.6	0.5	0.4	20	-	0.7
Pteropoda	5.7	2.9	1.5	0.4	0.4	280	0.8	3.1
Misc. Mollusca	9.1	2.9	2.6	3.2	3.9	1360	2.5	13.2
Larvacea	28.6	8.1	39.1	10.0	10.2	160	20.9	24.3
Misc. Tunicata	62.4	9.2	1.3	0.3	1.0	100	3.0	7.1
Leptocardia	0.04	-	0.01	0.01	<0.01	-	-	0.02
Misc. Organisms	45.5	1.8	3.5	3.6	5.5	1660	5.3	66.6
Subtotal	1052.3	1066.6	258.9	191.6	228.9	55108	525.8	761.0
Fish Eggs	6.98	0.28	-	0.02	0.01	3	12.88	7.76
Fish Larvae	4.56	3.63	1.48	1.41	1.57	110	5.79	9.40
Total	1063.9	1070.5	260.4	193.0	230.5	55221	544.5	778.2

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 33	Reg. 34	Reg. 35	Reg. 36	Reg. 37	Reg. 38	Reg. 39	Reg. 40
Protozoa	0.4	30.7	201.8	162.8	3.5	5.8	124.7	4.7
Coelenterata	2.9	1.4	5.2	1.5	3.3	6.6	4.3	4.9
Chaetognatha	33.9	76.7	51.8	93.5	25.8	11.3	47.8	4.6
Misc. Worms	1.1	0.6	0.3	0.3	0.4	1.0	2.0	0.7
Copepoda	518.4	533.2	649.9	752.9	285.0	404.7	698.5	71.4
Ostracoda	2.2	-	-	0.3	859.7	2.4	2.3	4.5
Mysidacea	1.1	0.7	1.4	1.8	3.2	2.0	-	-
Amphipoda	14.6	-	1.7	3.5	28.7	3.0	2.0	0.3
Isopoda	-	0.1	0.3	0.6	-	-	-	-
Stomatopoda	2.9	20.0	1.9	1.5	2.7	1.2	4.9	-
Euphausiacea	-	-	-	-	-	0.9	1.0	3.2
Shrimp	154.7	195.8	120.3	209.6	6.0	65.0	26.2	0.8
Crabs	61.3	167.5	92.6	74.2	43.0	30.2	26.2	0.4
Misc. Crustaceans	1.1	83.8	57.4	1.1	0.3	1.3	1.1	0.4
Pteropoda	1.1	0.2	-	0.4	1.4	1.3	2.1	0.6
Misc. Mollusca	26.6	74.3	19.4	11.2	14.2	3.2	2.6	1.8
Larvacea	290.1	43.6	92.6	69.3	2.0	3.7	16.9	4.9
Misc. Tunicata	1.1	0.1	3.8	3.3	2.2	3.2	3.0	0.8
Leptocardia	5.58	1.59	1.90	8.72	0.55	0.03	0.01	-
Misc. Organisms	41.6	676.0	122.2	83.8	97.5	22.1	36.6	3.8
Subtotal	1160.7	1906.3	1424.5	1480.3	1379.4	568.9	1002.2	107.8
Fish Eggs	4.16	22.83	1.66	19.95	5.55	2.99	0.13	<0.01
Fish Larvae	14.00	26.36	13.48	28.30	6.12	3.35	7.29	0.58
Total	1178.8	1955.6	1439.6	1528.6	1391.1	575.3	1009.6	108.4

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 41	Reg. 42*	Reg. 44	Reg. 45	Reg. 46	Reg. 47	Reg. 48	Reg. 49
Protozoa	49.4	320	249.7	231.0	141.4	0.4	23.2	142.8
Coelenterata	10.9	3020	2.4	1.6	0.8	0.7	21.5	9.1
Chaetognatha	9.3	1120	45.9	69.1	38.2	55.6	26.6	18.8
Misc. Worms	2.7	400	0.2	0.1	1.2	0.1	3.1	3.1
Copepoda	143.8	114268	1146.6	1027.8	1730.6	404.9	245.8	383.4
Ostracoda	1.4	100	37.4	3.8	0.6	70.5	4.7	2.8
Mysidacea	<0.1	140	8.0	3.0	0.5	-	0.1	-
Amphipoda	2.6	540	4.5	6.1	1.6	11.2	2.6	1.6
Isopoda	0.1	280	1.1	0.7	0.3	-	-	-
Stomatopoda	-	700	0.5	0.6	4.8	4.2	0.3	0.5
Euphausiacea	4.0	180	-	-	-	-	0.6	1.3
Shrimp	2.4	4876	317.7	161.9	108.3	9.7	3.7	5.2
Crabs	0.2	18444	64.6	110.0	94.3	29.8	10.3	1.9
Misc. Crustaceans	0.2	20	4.2	198.0	693.3	0.3	3.4	26.4
Pteropoda	1.5	500	0.5	-	0.2	3.4	1.2	2.0
Misc. Mollusca	3.1	1280	12.2	5.5	3.3	2.0	3.0	2.9
Larvacea	18.0	160	66.2	73.9	41.9	5.4	24.9	39.5
Misc. Tunicata	1.5	80	175.0	424.3	490.7	18.8	3.2	20.9
Leptocardia	0.02	1	0.50	1.25	0.85	0.32	-	0.08
Misc. Organisms	3.2	420	45.9	50.3	225.3	263.0	167.6	458.0
Subtotal	254.4	146849	2183.1	2369.0	3578.2	880.3	545.8	1120.3
Fish Eggs	<0.01	4	18.75	126.76	17.22	6.04	0.05	0.07
Fish Larvae	0.58	283	16.46	42.32	10.98	4.53	1.67	1.56
Total	255.0	147136	2218.3	2538.0	3606.4	890.9	547.5	1121.9

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 50	Reg. 51*	Reg. 52*	Reg. 53*	Reg. 54*	Reg. 55	Reg. 56	Reg. 57
Protozoa	22.6	10176	21412	14628	68052	595.5	347.6	159.8
Coelenterata	5.8	2340	2220	980	3816	0.5	4.4	17.3
Chaetognatha	3.7	2440	1280	2020	6148	39.1	12.6	70.1
Misc. Worms	1.4	520	240	140	80	1.4	5.8	1.8
Copepoda	102.5	92432	121900	268816	35404	862.6	2424.2	2361.6
Ostracoda	3.5	-	60	-	20	6.3	0.4	4.8
Mysidacea	-	120	200	-	-	-	-	1.5
Amphipoda	0.9	280	700	200	540	0.8	0.1	22.4
Isopoda	<0.1	-	-	-	-	-	0.3	-
Stomatopoda	0.1	20	180	320	480	3.0	2.6	2.2
Euphausiacea	4.6	620	-	20	-	-	-	-
Shrimp	1.5	820	440	380	240	39.1	164.5	89.6
Crabs	0.2	440	220	2020	740	30.6	37.2	10.7
Misc. Crustaceans	0.3	180	60	20	40	86.8	65.2	4.0
Pteropoda	0.4	400	420	1580	160	-	-	0.4
Misc. Mollusca	3.8	3604	5300	340	400	9.5	76.0	25.0
Larvacea	15.7	4876	8056	13568	9752	86.8	34.1	155.9
Misc. Tunicata	0.4	80	120	120	20	52.7	43.4	0.7
Leptocardia	0.01	5	-	-	-	95.46	3.97	-
Misc. Organisms	362.4	505408	295316	116600	18232	76.6	83.8	148.1
Subtotal	529.9	624761	458124	421752	144124	1986.8	3306.2	3075.9
Fish Eggs	0.01	1	70	11861	788	2.98	0.34	17.20
Fish Larvae	1.09	285	85	51	462	14.66	8.11	1.62
Total	531.0	625047	458279	433664	145374	2004.4	3314.6	3094.7

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 58*	Reg. 59*	Reg. 60	Reg. 61	Reg. 63	Reg. 64	Reg. 65	Reg. 66
Protozoa	28832	1940	12.4	19.3	38.8	30.8	36.5	142.4
Coelenterata	2120	4452	4.3	13.4	8.7	4.5	6.2	11.7
Chaetognatha	19504	2240	25.8	17.2	19.9	7.6	5.7	20.4
Misc. Worms	280	40	0.6	1.0	1.6	1.2	0.4	0.5
Copepoda	415096	30528	399.2	393.7	167.0	249.2	313.5	828.0
Ostracoda	6360	740	0.9	1.8	0.1	2.5	0.4	17.7
Mysidacea	800	-	-	-	0.2	-	-	-
Amphipoda	11448	420	3.5	3.6	4.8	1.9	2.0	3.2
Isopoda	60	-	-	-	-	-	0.1	-
Stomatopoda	3604	520	0.3	0.4	1.6	0.4	0.8	1.2
Euphausiacea	-	-	0.3	0.9	0.3	1.0	1.2	0.2
Shrimp	8904	240	65.9	44.0	1.5	1.5	1.7	10.4
Crabs	20776	5936	6.4	7.8	8.7	2.2	6.0	16.4
Misc. Crustaceans	153276	100	2.1	30.0	13.6	0.2	0.1	8.2
Pteropoda	80	300	1.6	2.4	5.8	1.0	0.8	15.7
Misc. Mollusca	15264	320	1.1	2.7	5.3	1.7	3.0	10.9
Larvacea	16112	240	1.9	2.7	28.2	17.0	26.4	97.6
Misc. Tunicata	-	8268	96.4	25.7	7.8	3.4	0.6	84.4
Leptocardia	568	-	-	-	0.01	0.01	-	-
Misc. Organisms	25228	21624	269.3	320.8	159.2	237.8	401.6	561.6
Subtotal	728312	77908	892.0	887.4	473.1	563.9	807.0	1830.5
Fish Eggs	3945	968	0.01	0.02	0.15	0.02	3.37	4.13
Fish Larvae	17856	356	1.40	1.45	1.21	0.35	1.78	3.21
Total	750113	79232	893.4	888.9	474.5	564.3	812.2	1837.8

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 67	Reg. 68	Reg. 69	Reg. 70	Reg. 71	Reg. 72	Reg. 75	Reg. 76
Protozoa	171.8	352.0	336.5	135.2	37.9	23.9	27.2	208.4
Coelenterata	7.8	33.6	2.1	13.6	3.8	8.2	4.8	0.9
Chaetognatha	63.1	41.6	62.0	46.6	5.5	13.2	16.3	75.0
Misc. Worms	1.6	0.4	1.1	1.7	1.4	1.5	0.4	0.5
Copepoda	1510.4	977.6	739.3	943.6	237.7	233.0	76.2	309.6
Ostracoda	41.6	8.9	1.5	8.9	6.2	0.4	-	4.5
Mysidacea	-	0.6	2.3	1.3	-	0.1	<0.1	-
Amphipoda	3.2	56.0	9.8	6.5	1.0	2.3	0.9	1.7
Isopoda	0.4	0.2	0.9	0.3	0.7	0.1	-	-
Stomatopoda	3.9	1.5	1.8	1.6	0.7	1.2	1.7	0.5
Euphausiacea	-	-	-	-	1.1	0.5	0.4	0.1
Shrimp	49.7	25.6	38.9	25.5	4.8	6.3	0.7	46.9
Crabs	52.4	41.6	29.4	13.6	1.6	8.2	3.4	13.5
Misc. Crustaceans	110.1	120.0	20.0	258.4	29.2	9.4	-	13.5
Pteropoda	24.2	0.8	1.5	6.9	1.8	1.7	0.4	0.4
Misc. Mollusca	30.9	3.6	25.2	8.1	2.1	2.9	0.6	0.4
Larvacea	55.0	75.2	56.8	43.6	16.0	4.2	13.4	26.0
Misc. Tunicata	24.2	3.9	26.3	20.6	1.1	18.9	0.3	38.6
Leptocardia	1.92	0.97	0.03	0.10	0.02	0.03	-	0.16
Misc. Organisms	110.1	96.0	88.3	175.8	156.0	276.4	298.5	68.8
Subtotal	2262.3	1840.1	1443.7	1711.9	508.6	612.4	445.3	809.5
Fish Eggs	1.50	1.52	2.01	7.62	0.31	0.10	2.44	1.39
Fish Larvae	11.07	8.53	2.53	5.51	0.54	1.60	0.41	4.20
Total	2274.9	1850.1	1448.3	1725.0	509.4	614.1	448.2	815.0

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 77	Spc. 5	Spc. 6	Spc. 7	Spc. 8	Spc. 9
Protozoa	153.2	2.4	6.0	6.6	3.2	26.4
Coelenterata	0.5	3.6	5.2	3.5	6.6	3.3
Chaetognatha	5.2	3.5	4.4	4.2	5.5	8.8
Misc. Worms	0.4	1.5	1.1	0.8	0.9	0.9
Copepoda	458.5	92.8	88.3	43.3	95.7	106.7
Ostracoda	56.0	3.3	3.6	1.3	9.8	5.0
Mysidacea	0.9	0.1	-	-	-	<0.1
Amphipoda	14.9	0.2	0.6	<0.1	0.2	0.1
Isopoda	-	-	-	-	-	-
Stomatopoda	-	-	-	<0.1	-	0.1
Euphausiacea	-	3.1	1.8	3.0	5.1	7.2
Shrimp	4.8	0.7	1.2	1.0	0.3	1.4
Crabs	2.5	0.2	<0.1	0.6	0.7	0.2
Misc. Crustaceans	0.3	-	0.2	0.4	0.5	0.5
Pteropoda	4.3	1.1	0.9	<0.1	1.2	0.5
Misc. Mollusca	0.9	5.8	4.8	1.9	3.4	2.4
Larvacea	29.7	1.3	3.4	6.2	4.6	14.8
Misc. Tunicata	0.9	<0.1	<0.1	<0.1	0.2	0.2
Leptocardia	-	0.02	<0.01	-	0.03	0.01
Misc. Organisms	117.8	12.6	3.1	1.5	11.2	4.1
Subtotal	850.8	132.3	124.8	74.7	149.1	182.7
Fish Eggs	0.81	0.02	0.05	0.01	0.04	0.02
Fish Larvae	0.12	0.95	0.70	1.45	1.53	1.58
Total	851.7	133.3	125.6	76.2	150.7	184.3

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler)

Tow Number	1	2	3	4	5	6	7	8
Protozoa	0.9	8.0	2.1	6.5	16.3	7.2	23.4	27.0
Coelenterata	1.7	-	0.5	0.4	5.1	0.9	5.1	6.3
Chaetognatha	1.0	0.3	0.6	1.9	1.6	0.9	0.9	2.9
Misc. Worms	0.6	-	-	0.6	0.2	3.8	0.9	0.4
Copepoda	29.6	11.1	35.8	59.7	159.2	283.3	52.8	104.2
Ostracoda	0.4	-	-	-	-	0.3	1.6	0.4
Mysidacea	0.1	-	0.1	-	-	0.9	-	0.2
Amphipoda	0.3	-	0.1	-	2.9	1.9	0.2	0.4
Isopoda	-	-	-	-	-	-	-	0.2
Stomatopoda	0.4	-	0.1	-	1.4	1.6	0.2	0.2
Euphausiacea	1.0	-	0.1	-	0.8	-	0.9	1.9
Shrimp	1.4	0.1	5.8	0.4	8.2	35.8	2.3	2.9
Crabs	1.4	-	2.5	1.5	10.5	36.2	3.5	3.6
Misc. Crustaceans	-	2.5	0.7	0.2	1.0	33.6	0.5	0.6
Pteropoda	0.7	<0.1	0.6	-	2.1	0.3	1.2	3.6
Misc. Mollusca	3.6	28.2	12.1	2.7	1.9	2.8	4.4	2.9
Larvacea	0.4	-	1.7	2.7	3.3	20.4	10.7	4.0
Misc. Tunicata	-	-	0.4	-	1.9	-	2.1	1.0
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	0.2	0.6	0.1	3.2	2.1	7.5	2.1	5.4
Subtotal	43.7	50.9	63.3	79.8	218.5	437.4	112.8	168.1
Fish Eggs	0.06	0.25	0.22	0.08	14.03	34.90	96.78	0.54
Fish Larvae	0.26	0.30	0.27	0.17	3.17	7.48	6.82	3.22
Total	44.0	51.4	63.8	30.0	235.7	479.8	216.4	171.9

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	9	10	11	12*	13*	14*	15*	16*
Protozoa	32.9	36.0	6.3	375	225	35	340	1105
Coelenterata	7.3	1.0	2.2	155	40	10	165	185
Chaetognatha	2.3	3.4	1.4	50	140	85	200	105
Misc. Worms	-	0.2	0.1	5	85	5	-	10
Copepoda	41.0	77.2	25.9	3445	7049	21783	6201	5300
Ostracoda	-	-	0.1	20	-	30	-	-
Mysidacea	-	-	-	-	140	65	-	-
Amphipoda	0.3	0.6	0.3	45	-	15	20	20
Isopoda	-	-	-	-	15	5	-	-
Stomatopoda	-	-	-	5	30	75	50	105
Euphausiacea	1.3	0.6	0.3	35	-	5	-	5
Shrimp	1.3	0.4	0.6	85	880	2862	115	25
Crabs	1.3	1.4	0.1	95	555	3074	1500	445
Misc. Crustaceans	0.8	0.2	0.4	5	150	40	10	-
Pteropoda	0.8	0.6	0.3	20	10	5	10	5
Misc. Mollusca	2.0	1.6	1.0	45	275	50	135	130
Larvacea	7.8	1.8	0.7	340	1010	1590	300	80
Misc. Tunicata	1.0	-	0.1	20	-	-	25	25
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	2.8	1.8	1.9	70	190	10	50	5
Subtotal	102.9	126.8	41.7	4815	10794	29744	9121	7550
Fish Eggs	-	0.04	0.03	49	619	920	590	285
Fish Larvae	0.70	0.36	0.38	14	30	62	60	33
Total	103.6	127.2	42.1	4878	11443	30726	9771	7868

* Total number of organisms in sample, water volume not determined

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	17	18	19	20	21	22	23	24
Protozoa	2.1	20.8	13.5	10.2	5.5	4.3	43.7	14.3
Coelenterata	1.7	3.6	9.9	1.0	0.2	6.2	4.7	8.0
Chaetognatha	13.1	10.8	9.2	0.8	-	5.6	4.7	2.1
Misc. Worms	0.7	0.3	-	0.5	0.2	0.3	0.3	2.1
Copepoda	394.8	405.0	342.1	39.3	4.3	160.3	671.3	1287.1
Ostracoda	3.1	22.6	0.7	-	-	-	70.7	0.4
Mysidacea	-	2.8	0.4	0.2	0.8	0.6	5.7	-
Amphipoda	15.5	10.0	4.2	0.3	-	3.1	14.7	-
Isopoda	-	-	0.4	-	-	-	1.0	0.8
Stomatopoda	3.8	7.2	3.5	0.5	-	7.7	2.0	0.4
Euphausiacea	-	0.3	0.4	-	-	-	-	1.3
Shrimp	127.9	20.8	4.2	0.7	0.2	2.5	130.7	52.5
Crabs	124.3	25.6	26.2	2.3	0.2	13.9	113.1	9.7
Misc. Crustaceans	3.1	0.5	-	-	0.2	-	20.0	178.2
Pteropoda	4.5	2.1	2.8	0.2	0.2	1.8	-	-
Misc. Mollusca	5.9	6.9	5.3	0.7	0.8	5.9	11.3	28.2
Larvacea	6.2	1.8	3.2	1.2	0.8	4.0	9.0	18.1
Misc. Tunicata	1.0	4.6	12.8	-	-	4.3	120.1	10.1
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	41.7	99.7	16.3	4.3	0.2	4.3	7.0	69.3
Subtotal	749.4	645.4	455.1	62.2	13.6	224.8	1230.0	1682.6
Fish Eggs	19.79	11.23	2.41	0.20	0.12	-	30.13	2.60
Fish Larvae	3.31	2.20	2.27	0.63	-	1.79	5.33	1.09
Total	772.5	658.8	459.8	63.0	13.7	226.6	1265.5	1686.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)

Run No. 1 Date July 16-17, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0024	0119	0214	0309	0404	0459	0554	0649
Position of (N. Lat.	29°53'	29°45'	29°37'	29°29'	29°20'	29°12'	29°05'	29°01'
Ship: (W. Long.	77°02'	77°02'	77°02'	77°03'	77°04'	77°03'	77°02'	77°00'
Protozoa	-	2.8	-	8.3	-	-	-	11.1
Coelenterata	-	-	2.8	-	-	2.8	-	-
Chaetognatha	-	-	-	2.8	-	-	-	2.8
Misc. Worms	2.8	-	2.8	2.8	-	-	-	-
Copepoda	44.5	25.0	27.8	50.0	22.2	16.7	38.9	25.0
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	2.8	5.6	2.8	-	-	-	-
Mollusca	2.8	11.1	5.6	19.5	-	2.8	-	2.8
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	13.9	8.3	2.8	11.1	16.7	19.5	2.8
Subtotal	50.1	55.6	52.9	89.0	33.3	39.0	58.4	44.5
Fish Eggs	-	-	-	-	2.8	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	50.1	55.6	52.9	89.0	36.1	39.0	58.4	44.5

Run No. 2 Date July 17, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0843	0938	1033	1128	1223	1318	1413	1508
Position of (N. Lat.	28°59'	28°53'	28°46'	28°38'	28°31'	28°25'	28°16'	28°09'
Ship: (W. Long.	77°01'	77°01'	77°00'	76°59'	76°59'	77°00'	77°00'	77°00'
Protozoa	3.6	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	21.5	10.8	25.1	28.7	10.8	25.1	89.8	21.5
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	3.6	-	-	-	-	-	-	-
Crabs	3.6	-	-	3.6	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	3.6
Mollusca	3.6	3.6	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	21.5	-	32.3	43.1	46.7	21.5	100.5	14.4
Subtotal	57.4	14.4	57.4	75.4	57.5	46.6	190.3	39.5
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	57.4	14.4	57.4	75.4	57.5	46.6	190.3	39.5

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 3 Date July 17, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1619	1719	1819	1919	2019	2119	2219	2319
Position of Ship: (N. Lat.	28°03'	28°03'	28°03'	28°03'	28°03'	28°04'	28°04'	28°02'
(W. Long.	77°00'	77°00'	77°03'	77°12'	77°21'	77°31'	77°40'	77°50'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	4.4	-	-
Chaetognatha	-	-	4.4	4.4	-	-	4.4	-
Misc. Worms	4.4	-	-	-	-	-	-	-
Copepoda	62.2	13.3	13.3	44.4	4.4	4.4	4.4	13.3
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	8.9	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	71.0	26.6	22.2	17.8	22.2	8.9	44.4	-
Subtotal	137.6	39.9	39.9	66.6	26.6	17.7	62.1	13.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	137.6	39.9	39.9	66.6	26.6	17.7	62.1	13.3

Run No. 4 Date July 18, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0235	0331	0427	0523	0619	0715	0811	0907
Position of Ship: (N. Lat.	28°01'	27°56'	27°50'	27°45'	27°40'	27°35'	27°28'	27°23'
(W. Long.	77°58'	77°56'	77°50'	77°42'	77°38'	77°33'	77°29'	77°26'
Protozoa	-	-	-	-	-	2.7	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	2.7	2.7	-	5.4	2.7	-	2.7	-
Misc. Worms	-	-	-	-	2.7	-	-	-
Copepoda	32.2	40.2	21.4	45.6	2.7	5.4	2.7	8.0
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	2.7	5.4	2.7	-	-	2.7	-
Crabs	5.4	5.4	-	-	-	-	-	-
Misc. Crustaceans	10.7	2.7	-	-	-	-	-	2.7
Mollusca	8.0	8.0	-	8.0	2.7	8.0	13.4	10.7
Invertebrate Eggs	-	-	-	16.1	-	-	-	-
Misc. Organisms	16.1	32.2	21.4	21.4	8.0	16.1	26.8	-
Subtotal	75.1	93.9	48.2	99.2	18.8	32.2	48.3	21.4
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	75.1	93.9	48.2	99.2	18.8	32.2	48.3	21.4

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 5 Date July 18, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1015	1110	1206	1301	1357	1452	1548	1643
Position of Ship: (N. Lat.	27°13'	27°06'	26°59'	26°51'	26°45'	26°37'	26°31'	26°24'
(W. Long.	77°20'	77°15'	77°10'	77°03'	76°59'	76°56'	76°51'	76°48'
Protozoa	-	-	2.7	-	-	-	-	2.7
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	2.7	-	5.4
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	10.8	5.4	19.0	8.1	24.4	5.4	24.4	27.1
Ostracoda	-	-	2.7	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	2.7	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	2.7
Mollusca	40.6	46.1	-	13.6	2.7	2.7	2.7	10.8
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	24.4	16.3	8.1	37.9	21.7	19.0	24.4	21.7
Subtotal	78.5	67.8	32.5	59.6	48.8	29.8	51.5	70.4
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	2.7	-	-	-
Total	78.5	67.8	32.5	59.6	51.5	29.8	51.5	70.4

Run No. 6 Date July 25, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1206	1303	1359	1456	1552	1649	1745	1842
Position of Ship: (N. Lat.	27°01'	27°02'	27°03'	26°59'	27°02'	27°04'	27°10'	27°10'
(W. Long.	79°22'	79°23'	79°30'	79°36'	79°41'	79°43'	79°52'	80°01'
Protozoa	1	2	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	2	-
Chaetognatha	-	-	1	1	2	-	3	2
Misc. Worms	-	-	-	-	-	1	-	-
Copepoda	7	5	6	4	1	12	17	6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	1
Misc. Crustaceans	-	-	1	-	-	-	-	1
Mollusca	-	1	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	3	3	3	-	-	-	3	5
Subtotal	11	11	11	5	3	13	25	15
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	11	11	11	5	3	13	25	15

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 7 Date July 25-26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2024	2121	2218	2315	0012	0109	0206	0303
Position of Ship: (N. Lat.	27°01'	27°05'	27°12'	27°18'	27°25'	27°31'	27°38'	27°40'
(W. Long.	80°04'	80°03'	80°03'	80°04'	80°04'	80°04'	80°03'	80°01'
Protozoa	3.6	-	3.6	3.6	-	3.6	3.6	7.1
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.6	3.6	7.1	3.6	3.6	3.6	7.1	-
Misc. Worms	-	-	3.6	-	-	3.6	3.6	7.1
Copepoda	213.0	177.5	177.5	191.7	53.2	39.0	67.4	85.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	74.6	17.8	-	-	-	3.6	3.6	-
Shrimp	-	10.6	35.5	10.6	7.1	3.6	3.6	10.6
Crabs	53.2	71.0	85.2	28.4	28.4	14.2	3.6	-
Misc. Crustaceans	3.6	106.5	10.6	10.6	3.6	-	-	-
Mollusca	10.6	-	10.6	21.3	-	7.1	-	3.6
Invertebrate Eggs	-	7.1	7.1	-	-	-	-	-
Misc. Organisms	63.9	39.0	53.2	106.5	56.8	124.2	230.8	-
Subtotal	426.1	433.1	394.0	376.3	152.7	202.5	323.3	113.6
Fish Eggs	3.6	14.2	28.4	99.4	24.8	120.7	10.6	3.6
Fish Larvae	-	-	3.6	-	7.1	-	7.1	-
Total	429.7	447.3	426.0	475.7	184.6	323.2	341.0	117.2

Run No. 8 Date July 26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0410	0506	0602	0658	0754	0850	0946	1042
Position of Ship: (N. Lat.	27°37'	27°35'	27°40'	27°42'	27°42'	27°40'	27°40'	27°45'
(W. Long.	79°53'	79°45'	79°40'	79°38'	79°31'	79°20'	79°18'	79°15'
Protozoa	-	4.8	-	-	-	-	14.5	4.8
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	2.4	-	2.4	4.8	2.4	4.8	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	14.5	36.2	55.4	72.3	53.0	33.7	36.2	7.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	2.4	-	7.2	2.4	-	-	-	2.4
Shrimp	-	-	-	2.4	-	-	-	-
Crabs	-	7.2	-	2.4	2.4	-	-	-
Misc. Crustaceans	-	7.2	-	-	-	-	-	-
Mollusca	2.4	2.4	-	-	2.4	-	2.4	-
Invertebrate Eggs	-	-	-	-	-	-	12.0	-
Misc. Organisms	9.6	7.2	9.6	7.2	2.4	14.5	16.9	-
Subtotal	31.3	65.0	74.6	91.5	62.6	53.0	82.0	14.4
Fish Eggs	-	-	-	14.5	-	-	-	2.4
Fish Larvae	-	-	-	-	-	-	-	-
Total	31.3	65.0	74.6	106.0	62.6	53.0	82.0	16.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 9 Date July 26, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1142	1236	1330	1424	1518	1612	1706	1800
Position of Ship: (N. Lat.	27°54'	27°58'	28°00'	28°03'	28°07'	28°12'	28°20'	28°21'
(W. Long.	79°08'	79°03'	79°02'	79°06'	79°13'	79°20'	79°26'	79°26'
Protozoa	10.2	-	-	5.1	-	2.5	-	-
Coelenterata	-	-	-	-	-	-	-	2.5
Chaetognatha	-	-	-	2.5	5.1	-	2.5	5.1
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	2.5	10.2	2.5	10.2	22.9	35.6	33.0	27.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	5.1	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	2.5	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	2.5	5.1
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	20.3	5.1	5.1	-	7.6	7.6	12.7	7.6
Subtotal	38.1	15.3	7.6	17.8	35.6	45.7	53.2	48.2
Fish Eggs	-	-	-	2.5	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	38.1	15.3	7.6	20.3	35.6	45.7	53.2	48.2

Run No. 10 Date July 26-27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1902	1957	2052	2147	2242	2337	0032	0127
Position of Ship: (N. Lat.	28°22'	28°20'	28°20'	28°24'	28°26'	28°25'	28°22'	28°20'
(W. Long.	79°32'	79°40'	79°47'	79°51'	79°57'	80°04'	80°08'	80°14'
Protozoa	2.5	-	-	2.5	-	-	5.0	-
Coelenterata	-	-	-	-	2.5	-	2.5	-
Chaetognatha	2.5	7.5	2.5	2.5	2.5	2.5	2.5	-
Misc. Worms	-	-	2.5	2.5	-	-	-	-
Copepoda	62.5	22.5	40.0	52.5	50.0	52.5	47.5	212.5
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	2.5	2.5	5.0	2.5	-	-
Shrimp	-	2.5	-	-	-	-	-	12.5
Crabs	7.5	2.5	2.5	-	2.5	5.0	22.5	52.5
Misc. Crustaceans	-	2.5	-	2.5	2.5	-	2.5	2.5
Mollusca	5.0	-	2.5	-	-	5.0	-	12.5
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	22.5	7.5	12.5	10.0	75.0	52.5	42.5	25.0
Subtotal	102.5	45.0	65.0	75.0	140.0	120.0	125.0	317.5
Fish Eggs	-	-	-	-	-	7.5	15.0	47.5
Fish Larvae	-	-	-	-	-	-	2.5	-
Total	102.5	45.0	65.0	75.0	140.0	127.5	142.5	365.0

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 11 Date July 27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0230	0326	0422	0518	0614	0710	0806	0902
Position of Ship: (N. Lat.	28°20'	28°21'	28°23'	28°30'	28°37'	28°42'	28°48'	28°56'
(W. Long.	80°26'	80°31'	80°27'	80°21'	80°22'	80°25'	80°28'	80°31'
Protozoa	22.4	4.5	4.5	-	-	-	-	8.9
Coelenterata	4.5	-	-	-	-	-	8.9	-
Chaetognatha	17.9	-	53.6	13.4	13.4	4.5	13.4	53.6
Misc. Worms	4.5	-	-	-	-	4.5	4.5	-
Copepoda	621.3	116.2	831.4	581.1	411.2	420.2	317.4	232.4
Ostracoda	4.5	-	-	8.9	-	-	-	-
Amphipoda	4.5	-	-	-	-	-	-	-
Shrimp	116.2	58.1	98.3	31.3	17.9	-	-	8.9
Crabs	147.5	80.5	523.0	138.6	102.8	58.1	138.6	62.6
Misc. Crustaceans	58.1	4.5	31.3	22.4	8.9	-	4.5	31.3
Mollusca	35.8	4.5	8.9	4.5	4.5	-	8.9	4.5
Invertebrate Eggs	4.5	-	8.9	-	-	-	-	-
Misc. Organisms	639.2	26.8	304.0	107.3	93.9	169.9	107.3	116.2
Subtotal	1680.9	295.1	1863.9	907.5	652.6	657.2	603.5	518.4
Fish Eggs	22.4	4.5	13.4	31.3	4.5	26.8	44.7	58.1
Fish Larvae	-	4.5	4.5	4.5	-	-	-	-
Total	1703.3	304.1	1881.8	943.3	657.1	684.0	648.2	576.5

Run No. 12 Date July 27, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1120	1209	1258	1347	1436	1525	1614	1703
Position of Ship: (N. Lat.	28°59'	29°00'	28°58'	28°57'	28°57'	28°57'	28°58'	29°01'
(W. Long.	80°16'	80°10'	80°05'	79°59'	79°54'	79°48'	79°45'	79°44'
Protozoa	2.6	-	-	-	2.6	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.1	-	2.6	5.1	-	-	2.6	5.1
Misc. Worms	2.6	-	-	-	-	-	-	-
Copepoda	128.0	94.7	33.3	48.6	33.3	15.4	17.9	38.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	2.6	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	30.7	-	17.9	7.7	-	5.1	2.6	2.6
Misc. Crustaceans	7.7	2.6	-	-	2.6	-	2.6	-
Mollusca	-	2.6	-	2.6	-	-	-	2.6
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	15.4	53.8	35.8	28.2	12.8	12.8	5.1	23.0
Subtotal	194.7	153.7	89.6	92.2	51.3	33.3	30.8	71.7
Fish Eggs	5.1	7.7	-	-	-	2.6	-	5.1
Fish Larvae	-	-	-	-	-	-	-	-
Total	199.8	161.4	89.6	92.2	51.3	35.9	30.8	76.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 13 Date July 27-28, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1833	1928	2024	2119	2215	2310	0006	0101
Position of Ship: (N. Lat.	29°00'	29°01'	29°04'	29°08'	29°17'	29°25'	29°35'	29°39'
(W. Long.	79°32'	79°27'	79°28'	79°29'	79°33'	79°35'	79°38'	79°38'
Protozoa	-	6.0	-	3.0	3.0	8.9	-	3.0
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.0	6.0	3.0	3.0	-	3.0	6.0	-
Misc. Worms	3.0	-	-	-	-	3.0	-	-
Copepoda	62.6	26.8	29.8	6.0	29.8	20.9	14.9	20.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	3.0	-	-	-	3.0	-	3.0	-
Mollusca	-	-	-	-	-	-	3.0	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	65.6	32.8	29.8	11.9	32.8	32.8	17.9	8.9
Subtotal	137.2	71.6	62.6	23.9	68.6	68.6	44.8	32.8
Fish Eggs	-	-	-	-	3.0	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	137.2	71.6	62.6	23.9	71.6	68.6	44.8	32.8

Run No. 14 Date July 28, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0211	0308	0405	0502	0559	0656	0753	0850
Position of Ship: (N. Lat.	29°38'	29°36'	29°37'	29°41'	29°42'	29°40'	29°40'	29°40'
(W. Long.	79°45'	79°54'	80°00'	80°05'	80°14'	80°21'	80°30'	80°39'
Protozoa	2.2	-	2.2	2.2	-	2.2	17.8	-
Coelenterata	2.2	-	-	-	-	-	-	-
Chaetognatha	2.2	4.5	4.5	2.2	2.2	4.5	8.9	4.5
Misc. Worms	-	-	-	-	2.2	-	-	-
Copepoda	60.2	29.0	55.8	122.6	44.6	107.0	379.1	37.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	2.2	-	2.2	2.2	-	-	-
Shrimp	-	-	-	-	-	2.2	8.9	2.2
Crabs	-	-	-	-	-	-	11.2	15.6
Misc. Crustaceans	-	-	-	-	2.2	8.9	4.5	-
Mollusca	-	2.2	-	-	4.5	-	-	2.2
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	95.9	35.7	35.7	66.9	53.5	62.4	44.6	46.8
Subtotal	162.7	73.6	98.2	196.1	111.4	187.2	475.0	109.2
Fish Eggs	-	-	-	-	11.2	4.5	2.2	2.2
Fish Larvae	-	-	-	4.5	-	-	-	-
Total	162.7	73.6	98.2	200.6	122.6	191.7	477.2	111.4

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 15 Date July 28, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0953	1049	1145	1241	1337	1433	1529	1625
Position of Ship: (N. Lat.	29°40'	29°40'	29°40'	29°43'	29°51'	29°58'	30°05'	30°12'
(W. Long.	80°48'	80°55'	81°05'	81°10'	81°11'	81°12'	81°14'	81°18'
Protozoa	7.2	-	-	-	-	-	-	3.6
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.6	32.4	39.6	21.6	21.6	18.0	21.6	18.0
Misc. Worms	-	-	-	-	-	3.6	-	-
Copepoda	21.6	158.4	140.4	338.4	205.2	568.8	352.8	590.4
Ostracoda	-	3.6	-	-	-	-	-	-
Amphipoda	-	-	-	-	3.6	3.6	-	-
Shrimp	-	-	-	-	-	7.2	10.8	28.8
Crabs	32.4	226.8	82.8	43.2	18.0	18.0	28.8	18.0
Misc. Crustaceans	7.2	-	3.6	3.6	-	10.8	7.2	-
Mollusca	-	-	-	-	-	10.8	-	7.2
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	36.0	-	-	7.2	7.2	14.4	18.0	14.4
Subtotal	108.0	421.2	266.4	414.0	255.6	655.2	439.2	680.4
Fish Eggs	7.2	7.2	-	32.4	3.6	3.6	-	10.8
Fish Larvae	-	-	-	-	-	-	-	-
Total	115.2	428.4	266.4	446.4	259.2	658.8	439.2	691.2

Run No. 16 Date July 28-29, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1735	1831	1927	2023	2119	2215	2311	0007
Position of Ship: (N. Lat.	30°19'	30°20'	30°20'	30°20'	30°20'	30°20'	30°20'	30°19'
(W. Long.	81°17'	81°10'	80°59'	80°49'	80°47'	80°39'	80°32'	80°21'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.7	14.9	3.7	3.7	3.7	-	-	3.7
Misc. Worms	-	3.7	-	3.7	-	-	-	-
Copepoda	716.2	324.5	466.2	787.0	279.8	455.1	212.6	123.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	7.5	7.5	7.5	11.2	14.9
Shrimp	29.8	26.1	3.7	3.7	3.7	3.7	-	-
Crabs	3.7	74.6	108.2	22.4	3.7	26.1	22.4	11.2
Misc. Crustaceans	7.5	14.9	-	7.5	-	-	-	-
Mollusca	7.5	3.7	-	3.7	11.2	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	41.0	29.8	33.6	22.4	22.4	37.3	63.4
Subtotal	768.4	503.4	611.6	872.8	332.0	514.8	283.5	216.3
Fish Eggs	3.7	11.2	-	3.7	3.7	3.7	18.7	18.7
Fish Larvae	-	-	-	-	-	-	-	-
Total	772.1	514.6	611.6	876.5	335.7	518.5	302.2	235.0

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 17 Date July 29, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0141	0240	0339	0438	0537	0636	0735	*
Position of (N. Lat.	30°19'	30°20'	30°20'	30°21'	30°23'	30°22'	30°21'	
Ship: (W. Long.	80°12'	80°04'	79°55'	79°50'	79°45'	79°38'	79°30'	
Protozoa	-	-	-	-	-	3.6	-	
Coelenterata	-	-	3.6	-	-	-	-	
Chaetognatha	7.2	-	-	-	3.6	-	3.6	
Misc. Worms	-	-	-	-	-	-	-	
Copepoda	130.3	181.0	65.2	47.1	86.9	72.4	25.3	
Ostracoda	-	3.6	-	-	-	-	-	
Amphipoda	10.9	14.5	3.6	-	3.6	10.9	-	
Shrimp	3.6	-	-	-	-	-	-	
Crabs	7.2	7.2	3.6	-	3.6	3.6	7.2	
Misc. Crustaceans	-	-	-	-	-	-	-	
Mollusca	-	-	3.6	-	-	3.6	3.6	
Invertebrate Eggs	-	-	-	-	-	-	-	
Misc. Organisms	195.5	-	115.8	61.5	76.0	50.7	54.3	
Subtotal	354.7	206.3	195.4	108.6	173.7	144.8	94.0	
Fish Eggs	-	3.6	3.6	-	-	-	3.6	
Fish Larvae	-	-	-	-	-	-	-	
Total	354.7	209.9	199.0	108.6	173.7	144.8	97.6	

* No sample

Run No. 18 Date July 29, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0845*	0943	1041	1139	1237	1335	1433	1531
Position of (N. Lat.	30°24'	30°32'	30°41'	30°50'	30°57'	31°00'	30°59'	30°58'
Ship: (W. Long.	79°28'	79°25'	79°22'	79°18'	79°15'	79°16'	79°21'	79°29'
Protozoa		-	-	-	-	-	-	-
Coelenterata		-	-	-	-	-	-	-
Chaetognatha		-	-	-	-	-	-	5.6
Misc. Worms		-	-	-	-	-	-	-
Copepoda		5.6	-	2.8	13.9	16.7	36.1	27.8
Ostracoda		-	-	-	-	-	-	-
Amphipoda		-	-	-	-	-	-	-
Shrimp		-	-	-	-	-	-	-
Crabs		-	-	-	-	-	-	-
Misc. Crustaceans		-	-	-	-	-	-	-
Mollusca		-	-	-	2.8	2.8	2.8	-
Invertebrate Eggs		-	-	-	-	-	-	-
Misc. Organisms		-	428.1	325.3	50.0	225.2	94.5	158.5
Subtotal		5.6	428.1	328.1	66.7	244.7	133.4	191.9
Fish Eggs		-	-	-	-	-	-	-
Fish Larvae		-	-	-	-	-	-	-
Total		5.6	428.1	328.1	66.7	244.7	133.4	191.9

* No sample

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 19 Date July 29, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1635	1731	1827	1923	2019	2115	2211	2307
Position of Ship: (N. Lat.	30°57'	31°00'	31°03'	31°05'	31°08'	31°08'	31°05'	31°04'
(W. Long.	79°35'	79°37'	79°36'	79°38'	79°45'	79°52'	79°58'	80°01'
Protozoa	-	-	11.7	-	-	-	-	-
Coelenterata	-	-	-	5.9	-	8.8	5.9	2.9
Chaetognatha	5.9	-	5.9	2.9	5.9	8.8	-	2.9
Misc. Worms	-	-	-	-	-	5.9	-	-
Copepoda	67.4	29.3	35.2	76.2	85.0	175.8	26.4	105.5
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	2.9	2.9	-	-	-
Shrimp	2.9	2.9	-	-	-	5.9	2.9	-
Crabs	-	-	-	-	2.9	17.6	11.7	11.7
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	2.9	-	2.9	2.9	14.6	2.9	2.9	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	211.0	85.0	102.6	123.1	52.7	290.1	82.0	46.9
Subtotal	290.1	117.2	158.3	213.9	164.0	515.8	131.8	169.9
Fish Eggs	-	-	-	-	-	-	-	20.5
Fish Larvae	-	-	-	-	-	-	-	-
Total	290.1	117.2	158.3	213.9	164.0	515.8	131.8	190.4

Run No. 20 Date July 29-30, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0013	0109	0204	0300	0355	0451	0546	0642
Position of Ship: (N. Lat.	31°02'	31°01'	31°00'	31°00'	31°00'	31°01'	31°00'	31°00'
(W. Long.	80°09'	80°19'	80°25'	80°32'	80°41'	80°47'	80°59'	81°07'
Protozoa	-	-	-	6.3	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	19.0	6.3	6.3	31.7	6.3	69.7	38.0	38.0
Misc. Worms	-	-	-	-	-	6.3	12.7	12.7
Copepoda	272.6	69.7	145.8	139.5	126.8	107.8	342.4	234.6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	6.3	6.3	12.7	-	-	-
Shrimp	19.0	-	-	-	6.3	12.7	6.3	38.0
Crabs	25.4	-	6.3	-	25.4	44.4	69.7	19.0
Misc. Crustaceans	19.0	-	-	-	6.3	-	38.0	50.7
Mollusca	-	-	-	-	6.3	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	69.7	12.7	50.7	38.0	31.7	57.1	228.2	82.4
Subtotal	424.7	88.7	215.4	221.8	221.8	298.0	735.3	475.4
Fish Eggs	-	-	6.3	12.7	-	-	12.7	12.7
Fish Larvae	-	-	-	-	-	-	-	-
Total	424.7	88.7	221.7	234.5	221.8	298.0	748.0	488.1

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 21 Date August 4-5, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1948	2045	2142	2239	2336	0033	0130	0227
Position of Ship: (N. Lat.	31°24'	31°29'	31°36'	31°41'	31°40'	31°38'	31°38'	31°37'
(W. Long.	80°50'	80°43'	80°37'	80°36'	80°31'	80°23'	80°15'	80°08'
Protozoa	12.5	-	-	-	-	-	8.3	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	29.1	12.5	25.0	-	4.2	12.5	12.5	29.1
Misc. Worms	-	-	4.2	-	-	4.2	-	-
Copepoda	337.0	282.9	208.0	295.4	312.0	253.8	104.0	241.3
Ostracoda	-	-	-	-	-	4.2	4.2	25.0
Amphipoda	25.0	4.2	8.3	4.2	8.3	25.0	12.5	-
Shrimp	33.3	29.1	41.6	49.9	49.9	12.5	-	-
Crabs	8.3	49.9	41.6	29.1	41.6	62.4	16.6	20.8
Misc. Crustaceans	12.5	16.6	-	4.2	-	16.6	-	-
Mollusca	4.2	4.2	16.6	4.2	8.3	12.5	-	4.2
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	66.6	20.8	37.4	37.4	12.5	25.0	95.7	87.4
Subtotal	528.5	420.2	382.7	424.4	436.8	428.7	253.8	407.8
Fish Eggs	33.3	37.4	20.8	4.2	20.8	12.5	4.2	-
Fish Larvae	4.2	-	-	-	4.2	4.2	4.2	-
Total	566.0	457.6	403.5	428.6	461.8	445.4	262.2	407.8

Run No. 22 Date August 5, 1953								
Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0333	0429	0525	0621	0717	0813	0909	1005
Position of Ship: (N. Lat.	31°36'	31°35'	31°33'	31°32'	31°33'	31°34'	31°34'	31°33'
(W. Long.	79°58'	79°50'	79°42'	79°32'	79°25'	79°21'	79°10'	78°59'
Protozoa	-	-	-	-	5.1	5.1	-	-
Coelenterata	5.1	-	-	-	-	5.1	-	-
Chaetognatha	20.4	5.1	10.2	-	5.1	10.2	-	-
Misc. Worms	-	-	5.1	-	-	5.1	-	-
Copepoda	361.4	183.2	234.1	157.8	142.5	213.8	40.7	50.9
Ostracoda	-	-	-	-	-	-	-	5.1
Amphipoda	-	15.3	5.1	-	15.3	-	-	5.1
Shrimp	20.4	10.2	5.1	5.1	20.4	10.2	-	-
Crabs	25.4	20.4	25.4	20.4	5.1	15.3	5.1	-
Misc. Crustaceans	-	-	5.1	-	-	-	-	-
Mollusca	10.2	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	71.3	137.4	20.4	127.2	56.0	61.1	5.1	183.2
Subtotal	514.2	371.6	310.5	310.5	249.5	325.9	50.9	244.3
Fish Eggs	5.1	15.3	-	5.1	-	-	5.1	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	519.3	386.9	310.5	315.6	249.5	325.9	56.0	244.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 23 Date August 5, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1113	1209	1304	1400	1455	1551	1646	1742
Position of Ship: (N. Lat.	31°31'	31°32'	31°34'	31°37'	31°40'	31°41'	31°46'	31°51'
(W. Long.	78°45'	78°41'	78°43'	78°49'	78°56'	79°00'	78°59'	79°03'
Protozoa	-	-	-	3.0	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	3.0	-	-	-
Misc. Worms	-	-	-	-	-	-	3.0	-
Copepoda	44.4	5.9	5.9	5.9	5.9	29.6	14.8	53.3
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	3.0	-	-	-	3.0	-	-	-
Misc. Crustaceans	5.9	-	-	-	-	3.0	3.0	-
Mollusca	-	-	-	-	-	-	5.9	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	47.4	-	-	5.9	-	77.0	56.2	-
Subtotal	100.7	5.9	5.9	14.8	11.9	109.6	82.9	53.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	100.7	5.9	5.9	14.8	11.9	109.6	82.9	53.3

Run No. 24 Date August 5-6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1855	1958	2102	2205	2309	0012	0116	0219
Position of Ship: (N. Lat.	31°55'	31°58'	32°02'	32°08'	32°13'	32°20'	32°30'	32°28'
(W. Long.	79°13'	79°15'	79°17'	79°26'	79°34'	79°41'	79°46'	79°47'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	3.8	-	11.2	-	18.8	7.5	45.0	41.2
Misc. Worms	-	-	3.8	-	3.8	-	-	-
Copepoda	82.5	191.2	138.8	48.8	337.5	22.5	168.8	168.8
Ostracoda	-	-	-	-	26.2	-	7.5	7.5
Amphipoda	-	-	-	-	-	-	-	7.5
Shrimp	-	-	3.8	-	7.5	-	22.5	26.2
Crabs	7.5	3.8	3.8	15.0	11.2	11.2	3.8	3.8
Misc. Crustaceans	3.8	-	-	-	-	-	-	11.2
Mollusca	7.5	3.8	-	-	18.8	-	7.5	3.8
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	18.8	60.0	63.8	11.2	48.8	3.8	52.5	41.2
Subtotal	123.9	258.8	225.2	75.0	472.6	45.0	307.6	311.2
Fish Eggs	-	-	-	3.8	22.5	-	-	3.8
Fish Larvae	-	-	-	-	-	-	-	7.5
Total	123.9	258.8	225.2	78.8	495.1	45.0	307.6	322.5

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 25 Date August 6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0336	0434	0532	0630	0728	0826	0924	1022
Position of Ship: (N. Lat.	32°37'	32°43'	32°49'	32°52'	32°50'	32°44'	32°38'	32°33'
(W. Long.	79°36'	79°29'	79°22'	79°16'	79°10'	79°03'	78°58'	78°53'
Protozoa	98.6	119.7	49.3	63.4	14.1	-	-	-
Coelenterata	7.0	-	-	-	-	-	-	-
Chaetognatha	-	7.0	28.2	-	7.0	42.2	42.2	14.1
Misc. Worms	-	-	14.1	-	-	-	-	-
Copepoda	577.3	725.1	1119.4	1006.7	1126.4	183.0	119.7	112.6
Ostracoda	21.1	-	-	-	7.0	7.0	-	-
Amphipoda	14.1	-	-	-	-	-	14.1	7.0
Shrimp	21.1	42.2	35.2	-	35.2	14.1	14.1	7.0
Crabs	42.2	42.2	21.1	42.2	14.1	21.1	21.1	-
Misc. Crustaceans	21.1	70.4	373.1	260.5	126.7	7.0	-	-
Mollusca	7.0	-	7.0	14.1	-	-	-	-
Invertebrate Eggs	-	-	7.0	-	14.1	-	-	-
Misc. Organisms	77.4	14.1	77.4	204.2	28.2	35.2	49.3	42.2
Subtotal	886.9	1020.7	1731.8	1591.1	1372.8	309.6	260.5	182.9
Fish Eggs	-	28.2	14.1	-	7.0	-	-	7.0
Fish Larvae	-	-	7.0	-	-	-	-	-
Total	886.9	1048.9	1752.9	1591.1	1379.8	309.6	260.5	189.9

Run No. 26 Date August 6, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1228	1324	1419	1515	1610	1706	1801	1857
Position of Ship: (N. Lat.	32°22'	32°18'	32°14'	32°13'	32°14'	32°10'	32°04'	31°57'
(W. Long.	78°43'	78°37'	78°30'	78°24'	78°21'	78°16'	78°13'	78°07'
Protozoa	3.7	-	3.7	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	7.3	-	3.7	-	7.3	3.7
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	98.8	69.5	128.1	175.7	175.7	65.9	62.2	84.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	11.0	-	-	-	-
Crabs	3.7	3.7	-	3.7	-	-	-	-
Misc. Crustaceans	3.7	3.7	14.6	7.3	3.7	-	-	-
Mollusca	3.7	-	11.0	-	7.3	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	43.9	54.9	51.2	58.6	25.6	179.3	69.5	91.5
Subtotal	157.5	131.8	215.9	256.3	216.0	245.2	139.0	179.4
Fish Eggs	3.7	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	161.2	131.8	215.9	256.3	216.0	245.2	139.0	179.4

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 27 Date August 6-7, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1958	2044	2130	2216	2302	2348	0034	0120
Position of Ship: (N. Lat.	31°57'	32°01'	32°06'	32°12'	32°18'	32°18'	32°20'	32°22'
(W. Long.	78°07'	78°00'	77°52'	77°44'	77°34'	77°34'	77°32'	77°31'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	4.2	-	-	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	-	20.9	12.5	16.7	12.5	46.0	20.9	4.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	8.4	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	4.2	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	-	37.6	112.9	58.5	20.9	33.4	-
Subtotal	-	29.3	58.5	129.6	71.0	66.9	54.3	4.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	-	29.3	58.5	129.6	71.0	66.9	54.3	4.2

Run No. 28 Date August 7, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0831	0926	1021	1116	1211	1306	1401	1456
Position of Ship: (N. Lat.	32°52'	32°54'	32°57'	33°02'	33°03'	33°04'	33°06'	33°11'
(W. Long.	77°57'	77°57'	78°02'	78°10'	78°16'	78°21'	78°24'	78°30'
Protozoa	-	-	-	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.2	-	10.3	15.4	-	5.2	-	5.2
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	185.4	144.2	61.8	51.5	15.4	25.8	46.4	97.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	5.2	5.2
Misc. Crustaceans	5.2	-	-	-	5.2	-	-	-
Mollusca	-	-	-	-	-	5.2	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	41.2	56.6	10.3	87.6	15.4	15.4	15.4	20.6
Subtotal	237.0	200.8	82.4	154.5	36.0	51.6	67.0	128.8
Fish Eggs	-	92.7	10.3	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	237.0	293.5	92.7	154.5	36.0	51.6	67.0	128.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 29 Date August 7, 1953

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1603	1659	1755	1851	1947	2043	2139	2235
Position of Ship: (N. Lat.	33°18'	33°24'	33°30'	33°32'	33°33'	33°34'	33°35'	33°36'
(W. Long.	78°39'	78°47'	78°56'	78°48'	78°37'	78°27'	78°18'	78°08'
Protozoa	-	-	120.7	-	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	10.1	-	-	-	-	-	40.2
Misc. Worms	-	-	-	-	-	-	-	20.1
Copepoda	764.6	1991.9	1418.5	191.1	20.1	50.3	503.0	613.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	20.1	10.1	-	-	10.1	-	20.1
Crabs	-	30.2	30.2	-	-	-	-	-
Misc. Crustaceans	-	100.6	90.5	50.3	20.1	90.5	-	50.3
Mollusca	-	60.4	10.1	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	110.7	110.7	171.0	-	10.1	10.1	-	30.2
Subtotal	875.3	2324.0	1851.1	241.4	50.3	161.0	503.0	774.6
Fish Eggs	-	20.1	-	-	-	-	30.2	20.1
Fish Larvae	-	-	-	-	-	-	-	-
Total	875.3	2344.1	1851.1	241.4	50.3	161.0	533.2	794.7

Table 13.--List of the species of fish in dip-net, trolling, and stomach contents collections (D-dip net; T-trolling; S-stomach contents)

Ablennes hians (Valenciennes) D
Abudefduf saxatilis (Linnaeus) D
Acanthocybium solandri (Cuvier) T
Acanthurus chirurgus (Bloch) S
Allanetta harringtonensis (Goode) D
Alutera sp. D
Alutera scripta (Osbeck) D
Amanses pullus (Ranzani) D S
Anchoa cubana (Poey) S
Balistes capriscus Gmelin D
Balistes capriscus ? S
Balistidae, unidentified S
Canthidermis sufflamen (Mitchill) D S
Caranx sp. S
Caranx bartholomaei Cuvier D S
Caranx crysos (Mitchill) D S
Caranx crysos ? S
Caranx ruber (Bloch) D S
Centrobranchus nigroocellatus (Günther) D
Clupeidae, unidentified D
Coryphaena hippurus Linnaeus D T S
Cypselurus cyanopterus (Valenciennes) D
Cypselurus heterurus (Rafinesque) D
Decapterus sp. S
Decapterus punctatus (Agassiz) D S
Diodon sp. S
Diodon holacanthus Linnaeus D
Diodon hystrix Linnaeus D
Elagatis bipinnulatus (Quoy & Gaimard) D
Engraulidae, unidentified S
Etrumeus sadina (Mitchill) S
Euleptorhamphus velox Poey D
Euthynnus alletteratus (Rafinesque) T
Exocoetus obtusirostris Günther D
Gempylus serpens Cuvier ? S
Hemiramphus balao LeSueur D
Hemiramphus brasiliensis (Linnaeus) D
Hemiramphidae, unidentified D
Hirundichthys affinis (Günther) D
Histrio gibba (Mitchill) D
Holocentrus sp. S
Holocentrus bullisi Woods D
Holocentrus rufus (Walbaum) D S
Holocentrus vexillarius (Poey) D
Hygophum reinhardti (Lütken) D
Hyporhamphus unifasciatus (Ranzani) D
Istiophorus americanus (Cuvier) D
Katsuwonus pelamis (Linnaeus) T
Kyphosus incisor (Cuvier) D
Lobotes surinamensis (Bloch) D
Lutianus sp. D
Monacanthus ciliatus (Mitchill) D
Monacanthus tuckeri Bean D
Mugil curema Valenciennes D
Myctophum affine (Lütken) D
Myctophum obtusirostris Taning D
Myctophum obtusirostris ? D
Oxyporhamphus micropterus (Valenciennes) D
Parexocoetus brachypterus (Richardson) D
Priacanthus cruentatus (Lacepede) D S
Prionotus sp. S
Prognichthys gibbifrons (Valenciennes) D
Psenes sp. S
Psenes cyanophrys Valenciennes D S
Pseudupeneus maculatus (Bloch) D
Sardinella anchovia Valenciennes S
Scomberomorus cavalla (Cuvier) T
Selar crumenophthalmus (Bloch) D S
Seriola dumerili (Risso) T
Seriola falcata Valenciennes D
Seriola fasciata (Bloch) D
Sphaeroides sp. D
Sphyraena barracuda (Walbaum) T
Stephanolepis hispidus (Linnaeus) D S
Stephanolepis setifer (Bennett) D
Strongylura acus (Lacepede) D
Strongylura ardeola (Valenciennes) D
Strongylura raphidoma (Ranzani) D
Syngnathus elucens Poey D
Syngnathus pelagicus Linnaeus D
Syngnathus springeri Herald D
Synodus sp. D
Tetrapturus belone Rafinesque ? D
Thunnus atlanticus (Lesson) T S
Xanthichthys ringens (Linnaeus) D S
Xanthichthys ringens ? S
Xiphias gladius Linnaeus D
Xyrichthys psittacus (Linnaeus) S
Xyrichthys psittacus ? S

Table 14.--Numbers and species of fish taken by trolling

Species	Date 1953	Time (EST)	Location N.lat	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Sphyraena barracuda	July 16	1630	30°08'	77°48'	F	III	757	6.6	none
"	July 26	1500	28°05'	79°10'	M	I	891	9.9	none
"	July 29	1445	30°59'	79°22'	M	III	891	8.8	none
Katsuwonus pelamis	July 17	1452	28°11'	77°00'	M	V	606	10.5	fish bones
Euthynnus alletteratus	July 28	1925	30°19'	80°59'	F	VII	661	9.9	Anchoa cubana (30); Xyrichthys psittacus ? (1); squid (1)
"	July 28	1925	30°19'	80°59'	F	V	644	9.9	none
"	July 28	1928	30°19'	80°59'	F	VII	675	9.4	Xyrichthys psittacus (1); Engraulidae, unidentified (3); fish remains, unidentified (3); squid (4)
"	Aug. 6	0805	32°47'	79°06'	M	VI	560	6.1	squid (2)
"	Aug. 11	1245	33°50'	77°07'	F	III	448	2.8	none
"	Aug. 11	1245	33°50'	77°07'	F	III	438	3.3	fish remains, unidentified (10); stomatopods (4); squid (1)
Thunnus atlanticus	July 26	1230	27°58'	79°04'	M	III	485	4.4	Acanthurus chirurgus (3); fish remains, unidentified (4); stomatopods (6); decapods (2); amphipod (1); squid (5)
Scomberomorus cavalla	July 27	0800	28°47'	80°29'	M	VI	781	7.2	squid beak (1)
"	Aug. 6	0823	32°44'	79°04'	F	IV	793	8.8	none
Acanthocybium solandri	July 16	0630	30°27'	79°01'	M	I	1115	11.0	Thunnus atlanticus (1)

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Coryphaena hippurus	July 16	0745	30°24'	78°49'	M	I	600	4.4	none
"	July 16	1400	30°14'	78°10'	F	I	488	2.2	Diodon sp. (1)
" /1	July 23	0800	26°21.2'	76°46.5'	F	IV	1240	31.9	Holocentrus rufus (1); Canthidermis sufflamen (1); Xanthichthys ringens (8); Amanses pullus (1); Diodon sp. (1); squid beak (1)
" /1	July 23	0830	26°21.2'	76°46.5'	F	IV	1190	28.7	Holocentrus sp. (1); Gempylus serpens ? (1); Priacanthus cruentatus (1); Xanthichthys ringens (11); Diodon sp. (1); crab (Portuna sp.) (1)
"	July 25	1330	27°02'	79°23'	F	V	1154	22.0	Xanthichthys ringens ? (1); Amanses pullus (1); fish remains, unidentified (3); squid (2)
"	July 26	1450	28°04'	79°09'	M	I	718	6.6	Caranx crysos (1); Caranx ruber (1); Caranx bartholomaei (1)
"	July 26	1450	28°04'	79°09'	F	I	742	7.7	Caranx crysos (2)
"	July 28	0630	29°41'	80°18'	M	I	628	5.5	Etrumeus sadina (2)
"	July 28	0630	29°41'	80°18'	F	IV	615	4.4	Amanses pullus (1)
"	July 28	0745	29°40'	80°30'	F	III	728	7.7	Decapterus sp. (1)
"	Aug. 5	0600	31°33'	79°35'	F	I	513	2.2	none
"	Aug. 5	0600	31°33'	79°35'	F	I	490	2.2	none
"	Aug. 5	0610	31°33'	79°33.5'	F	I	513	3.3	none
" /1	Aug. 5	0715	31°34'	79°26'	F	II	578	4.4	none
" /1	Aug. 5	0716	31°34'	79°26'	F	II	555	3.3	Balistes capriscus ? (1); fish remains, unidentified (2)
" /1	Aug. 5	0718	31°34'	79°26'	F	I	578	3.3	Caranx crysos (2)
" /1	Aug. 5	0718	31°34'	79°26'	F	I	541	3.3	none

/1 Hook and line fishing

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date 1953	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
C. hippurus (cont'd)	Aug. 5	1000	31°33'	79°00'	F	I	505	3.3	Caranx crysos (2); Caranx sp. (1) /2
"	Aug. 5	1000	31°33'	79°00'	F	I	435	2.2	none
"	Aug. 6	1625	32°13'	78°20'	F	I	500	3.3	Coryphaena hippurus (1); Psenes cyanophrys (2); Psenes sp. (1); Selar crumenophthalmus (1); Balistidae, unidentified (2); fish remains, unidentified (1)
"	Aug. 6	1625	32°13'	78°20'	F	I	470	2.2	(combined with C. hippurus above)
"	Aug. 10	1230	33°19'	77°34'	F	I	529	3.3	Selar crumenophthalmus (1); Stephanolepis hispidus (11); fish remains, unidentified (2)
"	Aug. 12	0800	33°59'	75°57'	M	I	505	3.3	none
Seriola dumerili	Aug. 11	1300	33°52'	77°09'	M	VII ?	855	19.8	Prionotus sp. (1); fish remains, unidentified (4); rocks and shells
"	Aug. 11	1300	33°52'	77°09'	M	I	570	5.5	Decapterus punctatus (2); fish remains, unidentified (1)
"	Aug. 11	1515	34°04'	77°21'	M	I	762	13.8	none
"	Aug. 11	1515	34°04'	77°21'	M	I	833	16.5	Sardinella anchovia (2)
"	Aug. 15	1200	32°42'	78°52'	M	I	706	9.9	fish remains, unidentified
"	Aug. 15	1200	32°42'	78°52'	M	I	701	11.0	Caranx crysos ? (1); fish remains, unidentified (3)

/2 Caranx latus Agassiz or C. hippos (Linnaeus)

Table 15.--Numbers and species of fish taken by dip net

Species	Location of capture, number and size range of specimens
CLUPEIDAE	
Unidentified	-Reg. 36, (4) 20-21 mm. Reg. 44, (1) 26.5 mm. Reg. 69, (18) 21.5-29.5 mm.
SYNODIDAE	
Synodus sp.	-Reg. 36, (3) 29-32 mm.
MYCTOPHIDAE	
Hygophum reinhardti	-Std., 7/18-19/53, 1900-0400, (1) 28.5 mm.
Myctophum affine	-Std., 7/19/53, 0000-0400, (8) 17-67 mm. Std., 7/23-24/53, 2000-0545, (2) 19.5-21.5 mm. Spc. 5, (10) 20.5-68.5 mm. Spc. 8, (4) 43.5-72 mm. Reg. 62, (7) 16-30 mm.
Myctophum obtusirostris	-Reg. 27, (1) 17 mm.
Myctophum obtusirostris ?	-Reg. 62, (1) 16 mm.
Centrobranchus nigroocellatus	-Std., 7/18-19/53, 1900-0400, (1) 23 mm. Spc. 5, (1) 22 mm.
BELONIDAE	
Strongylura ardeola	-Std., 7/18-19/53, 1900-0400, (1) 42.5 mm. Std., 7/23/53, 2000, (1) 226 mm. Spc. 5, (1) 278 mm. Reg. 63, (1) 271 mm.
Strongylura acus	-Std., 7/19/53, 0015, (1) 327 mm. Std., 7/23/53, 2000, (1) 123 mm. Spc. 9, (1) 54 mm. Reg. 3, (1) 471 mm. Reg. 13, (1) 39.5 mm. Reg. 36, (1) 370 mm. Reg. 50, (1) 112 mm. Reg. 57, (1) 558 mm. Reg. 62, (1) 121 mm.
Strongylura raphidoma	-Std., 7/19/53, 0000-0400, (1) 36.5 mm. Reg. 26, (1) 163 mm. Reg. 51, (2) 99-181 mm.
Ablennes hians	-Spc. 8, (2) 308-322 mm. Reg. 69, (3) 378-538 mm. Cape Hatteras Bight, 35°13'N., 75°32'W., 8/12/53, 1900, (2) 295-300 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
HEMIRAMPHIDAE	
Unidentified	-Std., 7/19/53, 0000-0400, (1) 22 mm.
Hemiramphus brasiliensis	-Std., 7/23-24/53, 2000-0545, (1) 48 mm.
	Spc. 8, (1) 90.5 mm.
	Reg. 3, (3) 63.5-78 mm.
	Reg. 16, (2) 26.5-47.5 mm.
	Reg. 17, (1) 59 mm.
	Reg. 26, (1) 27 mm.
	Reg. 36, (25) 60.5-151 mm.
	Reg. 51, (2) 32-54 mm.
	Reg. 64, (1) 24.5 mm.
	Reg. 69, (4) 160-170 mm.
	Cape Hatteras Bight, (1) 104 mm.
Hemiramphus balao	-Std., 7/18-19/53, 1900-0400, (2) 31-35.5 mm.
	Std., 7/23-24/53, 2000-0545, (1) 81 mm.
	Reg. 62, (1) 30 mm.
	Reg. 64, (1) 23 mm.
Hyporhamphus unifasciatus	-Reg. 11, (1) 164 mm.
	Reg. 44, (1) 150 mm.
	Cape Hatteras Bight, (1) 118 mm.
Euleptorhamphus velox	-Reg. 62, (1) 83 mm.
	Reg. 64, (3) 28-41 mm.
EXOCOETIDAE	
Oxyporhamphus micropterus	-Spc. 5, (1) 119 mm.
	Reg. 26, (4) 33-41 mm.
	Reg. 63, (1) 104 mm.
Parexocoetus brachypterus	-Std., 7/23/53, 0400-0600, (2) 32-36 mm.
	Std., 7/23-24/53, 2000-0545, (9) 33-89 mm.
	Reg. 10, (1) 63 mm.
	Reg. 26, (1) 56 mm.
	Reg. 32, (1) 86 mm.
	Reg. 36, (3) 24-32.5 mm.
	Reg. 42, (1) 12.5 mm.
	Reg. 43, (2) 50.5-66 mm.
	Reg. 44, (1) 127 mm.
	Reg. 50, (2) 39-43 mm.
	Reg. 51, (2) 28-47 mm.
	Reg. 69, (1) 36.5 mm.
	Reg. 70, (3) 27-33 mm.
Exocoetus obtusirostris	-Std., 7/18-19/53, 1900-0400, (1) 77 mm.
	Reg. 62, (1) 38 mm.
Cypselurus cyanopterus	-Reg. 26, (2) 98.5-122 mm.
	Reg. 26, (1) 22.5 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
EXOCOETIDAE (cont'd)	
Cypselurus heterurus	-Std. to Spc. 8, (1) 200 mm. /1 Reg. 37, (4) 183-219 mm. Reg. 50, (1) 28 mm. Reg. 61, (8) 11.5-17.5 mm. Reg. 63, (1) 164 mm. Reg. 64, (7) 15-21.5 mm. Reg. 65 to Reg. 66, (1) 56 mm. /1 Reg. 66, (1) 23 mm. Reg. 69, (1) 231 mm.
Prognichthys gibbifrons	-Std., 7/18-19/53, 1900-0400, (1) 60 mm. Brunswick to Spc. 5, 30°25'N., 78°55'W., 7/16/53, 0700, (1) 98 mm. Spc. 5, (1) 57.5 mm. Reg. 26, (2) 21.5-23 mm. Reg. 30, (3) 12-17 mm. Reg. 42, (2) 11-28 mm. Reg. 48, (1) 13 mm. Reg. 51, (1) 31 mm. Reg. 61, (2) 13-17 mm. Reg. 63, (2) 35-48 mm. Reg. 64, (1) 13 mm. Reg. 70, (1) 21 mm.
Hirundichthys affinis	-Reg. 26, (1) 34 mm. Reg. 48, (1) 12 mm. Reg. 61, (1) 10.5 mm. Reg. 62, (1) 49 mm. Reg. 70, (1) 42.5 mm.
HOLOCENTRIDAE	
Holocentrus rufus	-Std., 7/19/53, 0000-0400, (2) 47 mm. Std., 7/23-24/53, 2000-0545, (1) 49.5 mm.
Holocentrus vexillarius	-Std., 7/19/53, 0000-0400, (11) 36-38 mm. Std., 7/23-24/53, 2000-0545, (21) 14-41.5 mm. Spc. 5, (41) 31.5-37.5 mm. Spc. 8, (16) 32-38.5 mm. Reg. 27, (1) 18.5 mm.
Holocentrus bullisi	-Std., 7/23-24/53, 2000-0545, (3) 35-42.5 mm.
SYNGNATHIDAE	
Syngnathus pelagicus	-Reg. 8, (1) 120 mm. Reg. 26, (1) 98 mm.
Syngnathus springeri	-Reg. 57, (1) 263 mm.
Syngnathus elucens	-Reg. 3, (1) 91.5 mm.

/1 Found on deck; exact position unknown.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
ATHERINIDAE	
Allanetta harringtonensis	-Reg. 3, (45) 18-32 mm.
MUGILIDAE	
Mugil curema	-Std., 7/23/53, 0400-0600, (1) 25.1 mm. Reg. 3, (4) 14.6-17.5 mm. Reg. 25, (1) 15.5 mm. Reg. 26, (3) 15-18.5 mm. Reg. 69, (11) 21-22.6 mm. Reg. 70, (1) 24.8 mm.
ISTIOPHORIDAE	
Tetrapturus belone ?	-Reg. 30, (10) 9.4-21 mm.
Istiophorus americanus	-Reg. 42, (3) 16.2-18.2 mm. Reg. 61, (7) 12.8-38.8 mm. Reg. 62, (1) 27.4 mm.
XIPHIIDAE	
Xiphias gladius	-Reg. 30, (15) 18.2-34.4 mm.
CORYPHAENIDAE	
Coryphaena hippurus	-Std., 7/18-19/53, 1900-0400, (1) 18 mm. Reg. 30, (1) 23.4 mm. Reg. 51, (1) 168 mm. Reg. 61, (3) 18.4-31 mm. Reg. 62, (3) 32.6-46.7 mm. Reg. 64, (8) 13.1-50 mm.
NOMEIDAE	
Psenes cyanophrys	-Reg. 50, (2) 21-24 mm. Reg. 70, (1) 23 mm.
CARANGIDAE	
Seriola falcata	-Spc. 6, (1) 28 mm. Reg. 61, (1) 13.5 mm. Reg. 64, (13) 11-22 mm.
Seriola fasciata	-Reg. 64, (3) 15.5-22 mm.
Elagatis bipinnulatus	-Std., 7/19/53, 0000-0400, (1) 18.5 mm. Std., 7/23/53, 0400-0600, (1) 24 mm. Reg. 8, (3) 14.5-19 mm. Reg. 50, (1) 14 mm. Reg. 61, (1) 17 mm.
Selar crumenophthalmus	-Reg. 62, (1) 22.5 mm.
Decapterus punctatus	-Reg. 36, (2) 12-15 mm. Reg. 66, (17) 17-37 mm. Reg. 68, (3) 15.5-22 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
CARANGIDAE (cont'd)	
Caranx crysos	-Std., 7/19/53, 0000-0400, (1) 77.5 mm. Std., 7/23-24/53, 2000-0545, (1) 17.6 mm. Spc. 6, (2) 24.8-31.3 mm. Reg. 8, (9) 17-25 mm. Reg. 15, (1) 20.1 mm. Reg. 30, (1) 22.6 mm. Reg. 48, (1) 19.8 mm. Reg. 50, (2) 19.5-26.7 mm. Reg. 51, (3) 21.2-70 mm. Reg. 61, (8) 9.5-12.3 mm. Reg. 62, (7) 21.3-76 mm. Reg. 63, (1) 79 mm. Reg. 64, (68) 12-29 mm. Reg. 65, (1) 13.8 mm.
Caranx ruber	-Std., 7/18-19/53, 1900-0400, (26) 18.5-106 mm. Std., 7/19/53, 0000-0400, (4) 44-83.5 mm. Std., 7/23/53, 0400-0600, (1) 64 mm. Spc. 5, (1) 105 mm. Spc. 6, (3) 23-54 mm. Spc. 8, (1) 92.5 mm. Reg. 8, (8) 17.5-31.1 mm. Reg. 15, (2) 25-27 mm. Reg. 30, (2) 20-23 mm. Reg. 50, (44) 23-52 mm. Reg. 51, (1) 73 mm. Reg. 62, (1) 41 mm. Reg. 63, (5) 62-83 mm. Reg. 64, (1) 65 mm.
Caranx bartholomaei	-Reg. 15, (1) 15.5 mm. Reg. 62, (1) 95 mm.
PRIACANTHIDAE	
Priacanthus cruentatus	-Spc. 6, (1) 41 mm.
LOBOTIDAE	
Lobotes surinamensis	-Std., 7/19/53, 0100, (2) about 450 mm.
KYPHOSIDAE	
Kyphosus incisor	-Spc. 6, (1) 12.5 mm. Reg. 62, (1) 16 mm. Reg. 64, (4) 9-14 mm.
LUTIANIDAE	
Lutianus sp.	-Reg. 68, (1) 14 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
MULLIDAE	
Pseudupeneus maculatus	-Reg. 3, (1) 40 mm.
POMACENTRIDAE	
Abudefduf saxatilis	-Std., 7/18-19/53, 1900-0400, (2) 17.5-20 mm. Spc. 6, (1) 17 mm. Reg. 8, (5) 10.5-16.5 mm.
BALISTIDAE	
Balistes capriscus	-Reg. 61, (2) 19-50 mm. Reg. 62, (3) 15-64.5 mm. Reg. 63, (1) 70 mm. Reg. 64, (1) 55 mm.
Canthidermis sufflamen	-Spc. 6, (1) 90.5 mm. Reg. 8, (4) 9.5-19 mm. Reg. 26, (1) 89 mm. Reg. 30, (1) 9 mm. Reg. 50, (1) 6 mm.
Xanthichthys ringens	-Std., 7/18-19/53, 1900-0400, (3) 41.5-65.5 mm. Std., 7/23/53, 0400-0600, (1) 40 mm. Std., 7/23-24/53, 2000-0545, (1) 66.5 mm. Spc. 5, (1) 48.5 mm.
ALUTERIDAE	
Stephanolepis hispidus	-Reg. 25, (1) 11.5 mm. Reg. 37, (2) 23.5-34 mm. Reg. 39, (4) 13.5-24 mm. Reg. 48, (4) 16.5-43.5 mm. Reg. 61, (17) 11.5-42.5 mm. Reg. 63, (1) 11.5 mm. Reg. 64, (107) 12-48.5 mm. Reg. 65, (1) 11.5 mm. Reg. 66, (42) 8.4-52.5 mm. Reg. 68, (41) 7.5-32.5 mm. Reg. 70, (16) 17-49 mm.
Stephanolepis setifer	-Reg. 1, (1) 52 mm. Reg. 26, (1) 28.5 mm. Reg. 64, (1) 12.5 mm.
Monacanthus ciliatus	-Reg. 8, (2) 18-20.5 mm. Reg. 61, (2) 21.5-22 mm. Reg. 64, (3) 21-21.5 mm.
Monacanthus tuckeri	-Reg. 64, (1) 21.5 mm.
Amanses pullus	-Spc. 8, (1) 69.5 mm. Reg. 50, (2) 42-46 mm.

Table 15.--Numbers and species of fish taken by dip net (cont'd)

Species	Location of capture, number and size range of specimens
ALUTERIDAE (cont'd)	
Alutera scripta	-Reg. 50, (1) 39 mm.
Alutera sp. /2	-Reg. 61, (1) 21.5 mm.
TETRAODONTIDAE	
Sphaeroides sp.	-Reg. 61, (1) 9 mm. Reg. 65, (1) 10.5 mm. Reg. 66, (1) 9.5 mm. Reg. 68, (3) 7.5-12.5 mm.
DIODONTIDAE	
Diodon hystrix	-Std., 7/18-19/53, 1900-0400, (1) 84.5 mm.
Diodon holacanthus	-Std., 7/23-24/53, 2000-0545, (1) 28.5 mm. Reg. 64, (1) 60.5 mm.
ANTENNARIIDAE	
Histrio gibba	-Std., 7/18-19/53, 1900-0400, (1) 12.5 mm. Spc. 6, (2) 14.5-15 mm. Reg. 8, (1) 26 mm.

/2 Alutera schoepfii (Walbaum) or A. punctata Agassiz

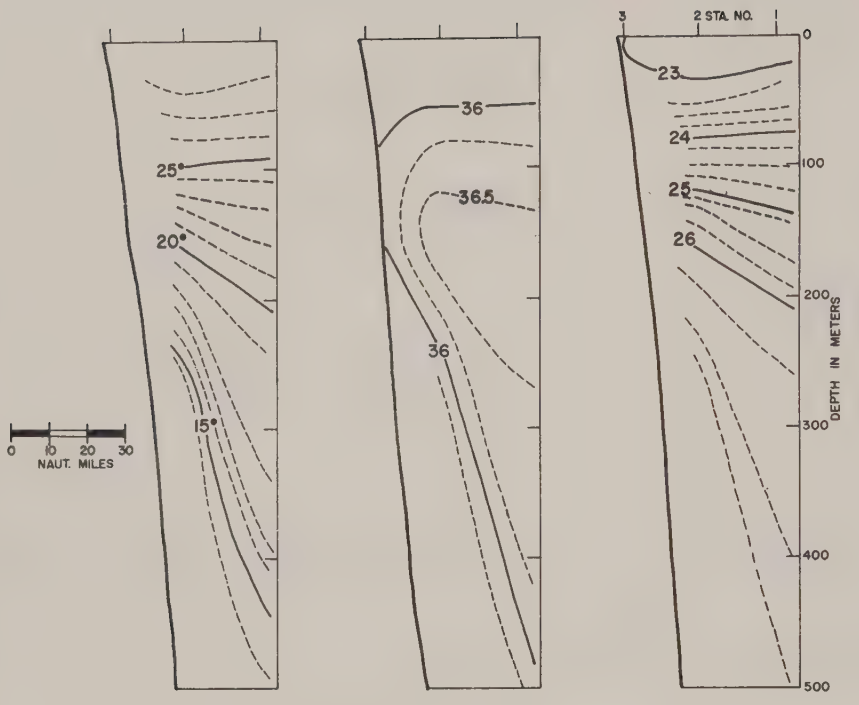

Figure 5.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 1, 2, and 3 (Jupiter Section).

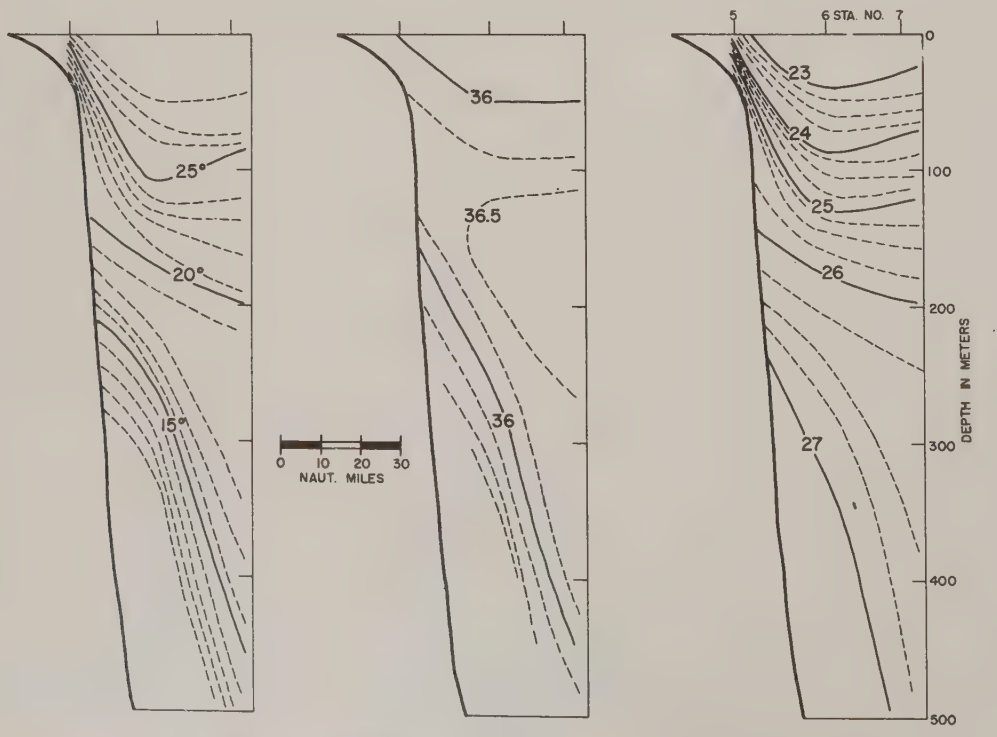

Figure 6.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 5, 6, and 7 (Vero Section).

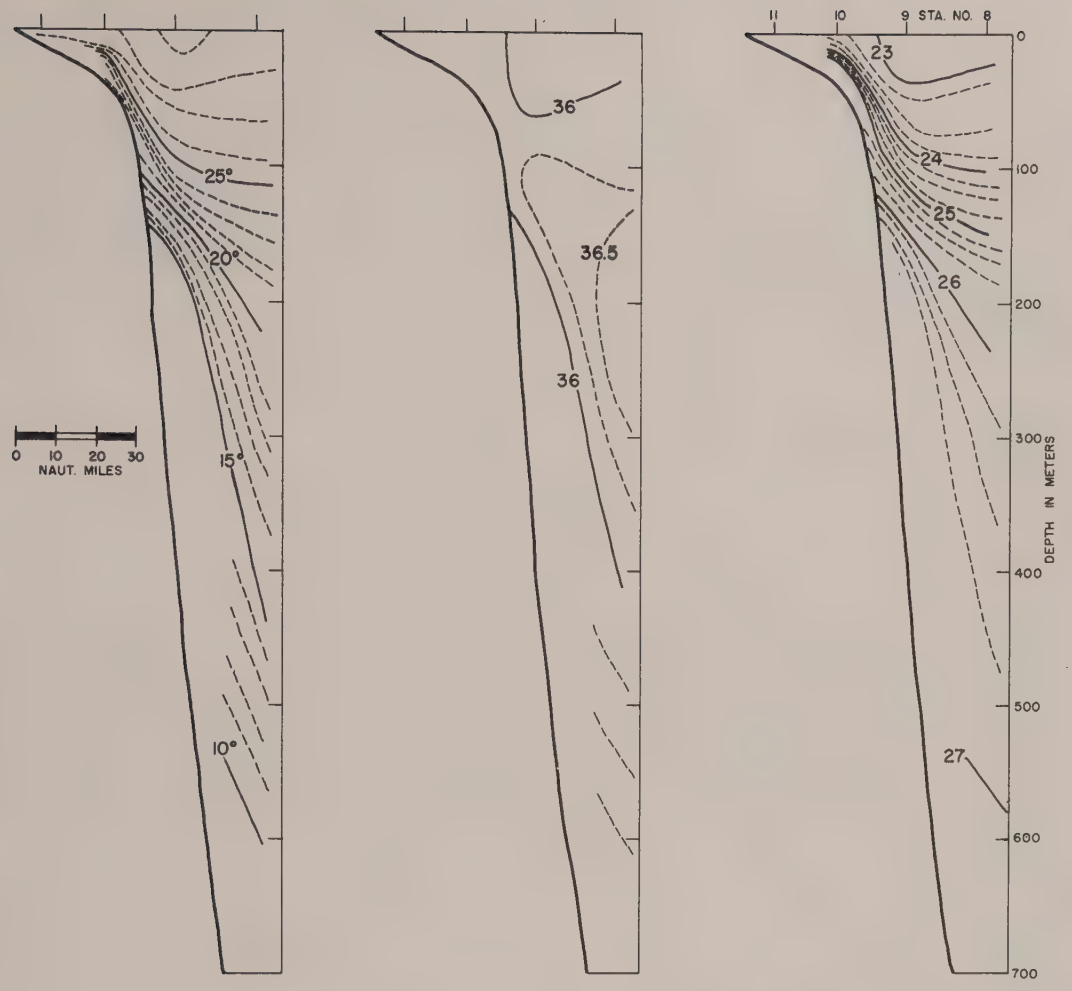

Figure 7.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 8, 9, 10, and 11 (Canaveral Section).

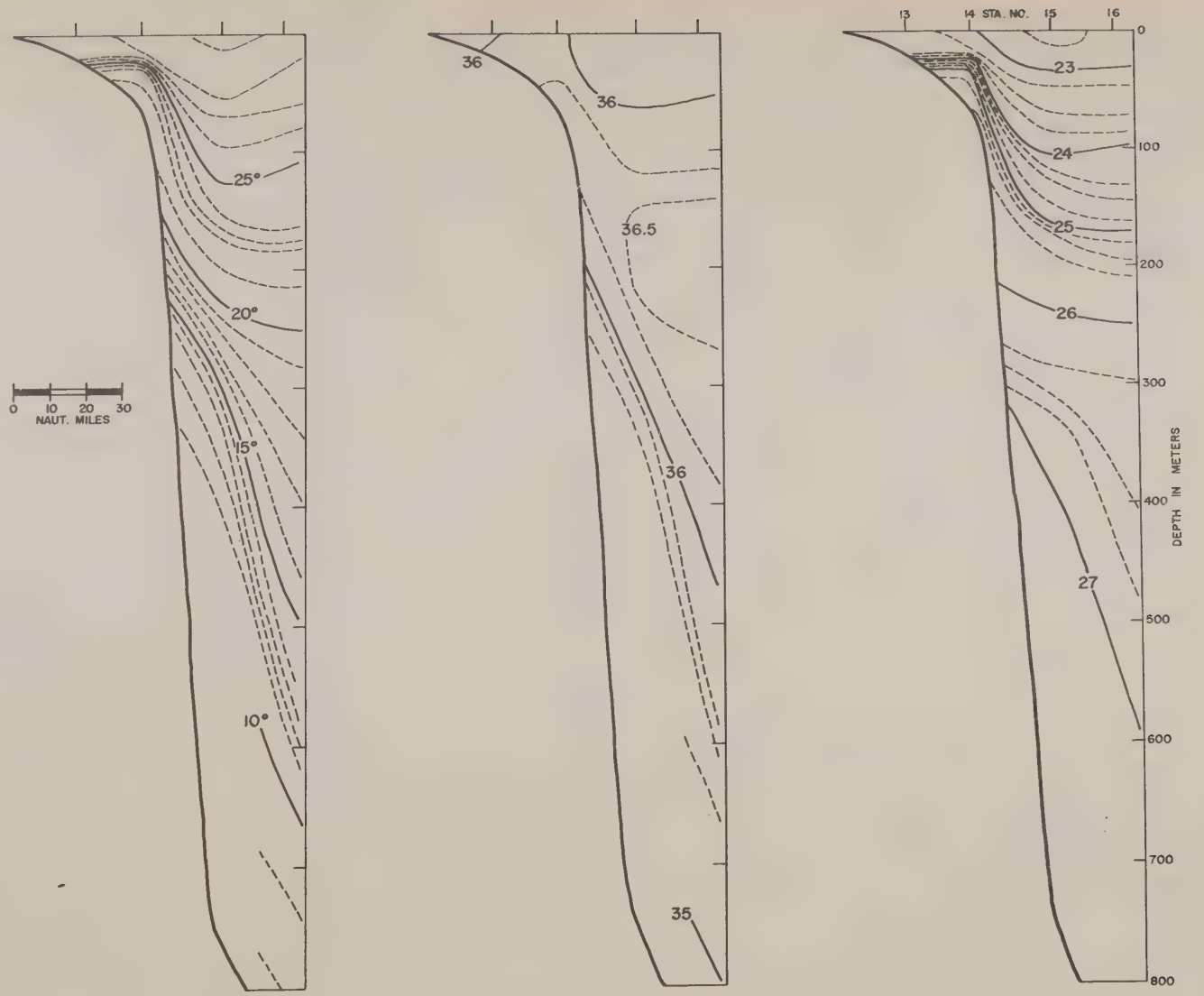

Figure 8.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 13, 14, 15, and 16 (Ponce de Leon Section).

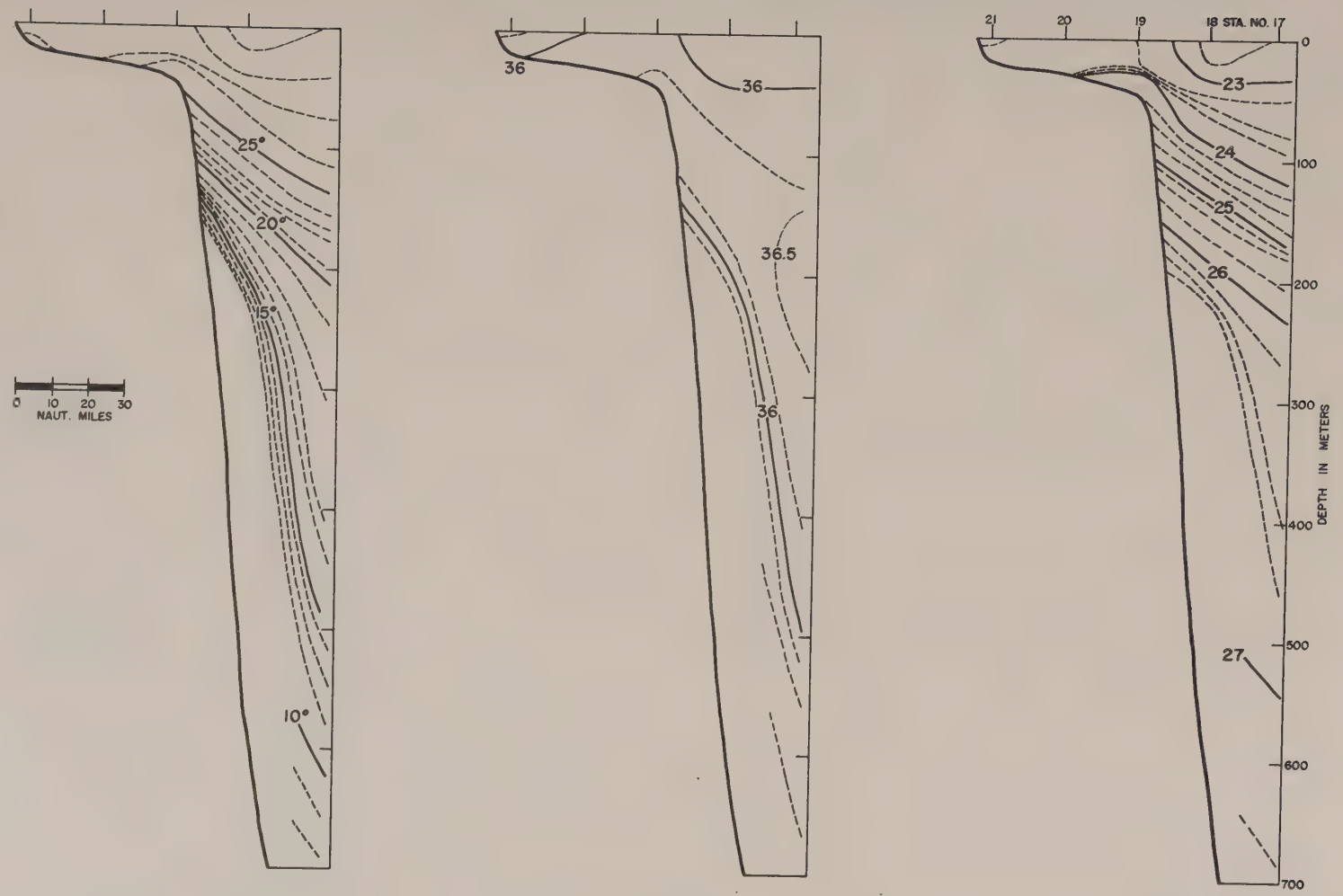

Figure 9.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 17, 18, 19, 20, and 21 (Matanzas Section).

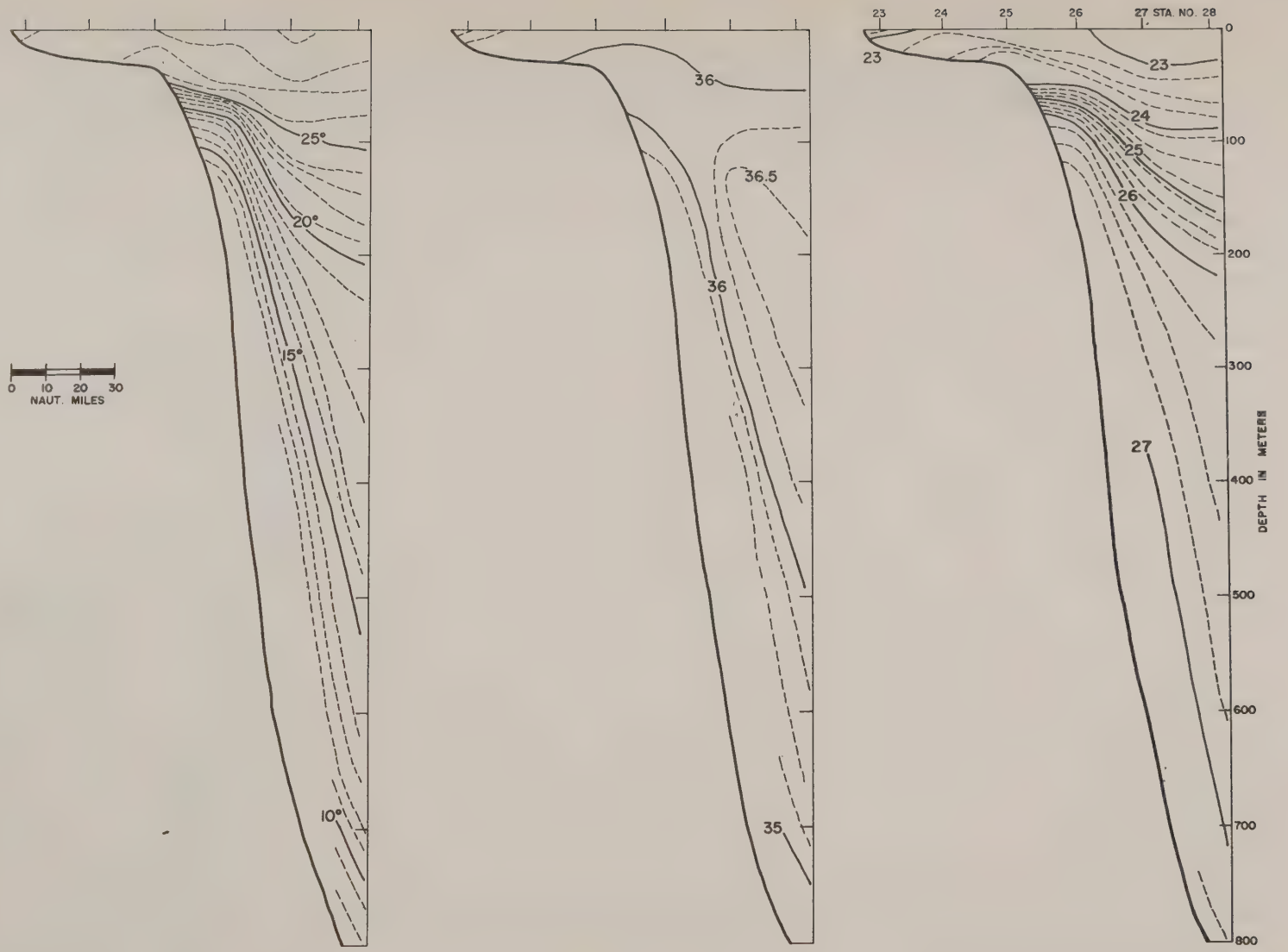

Figure 10.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 23, 24, 25, 26, 27, and 28 (Jacksonville Section).

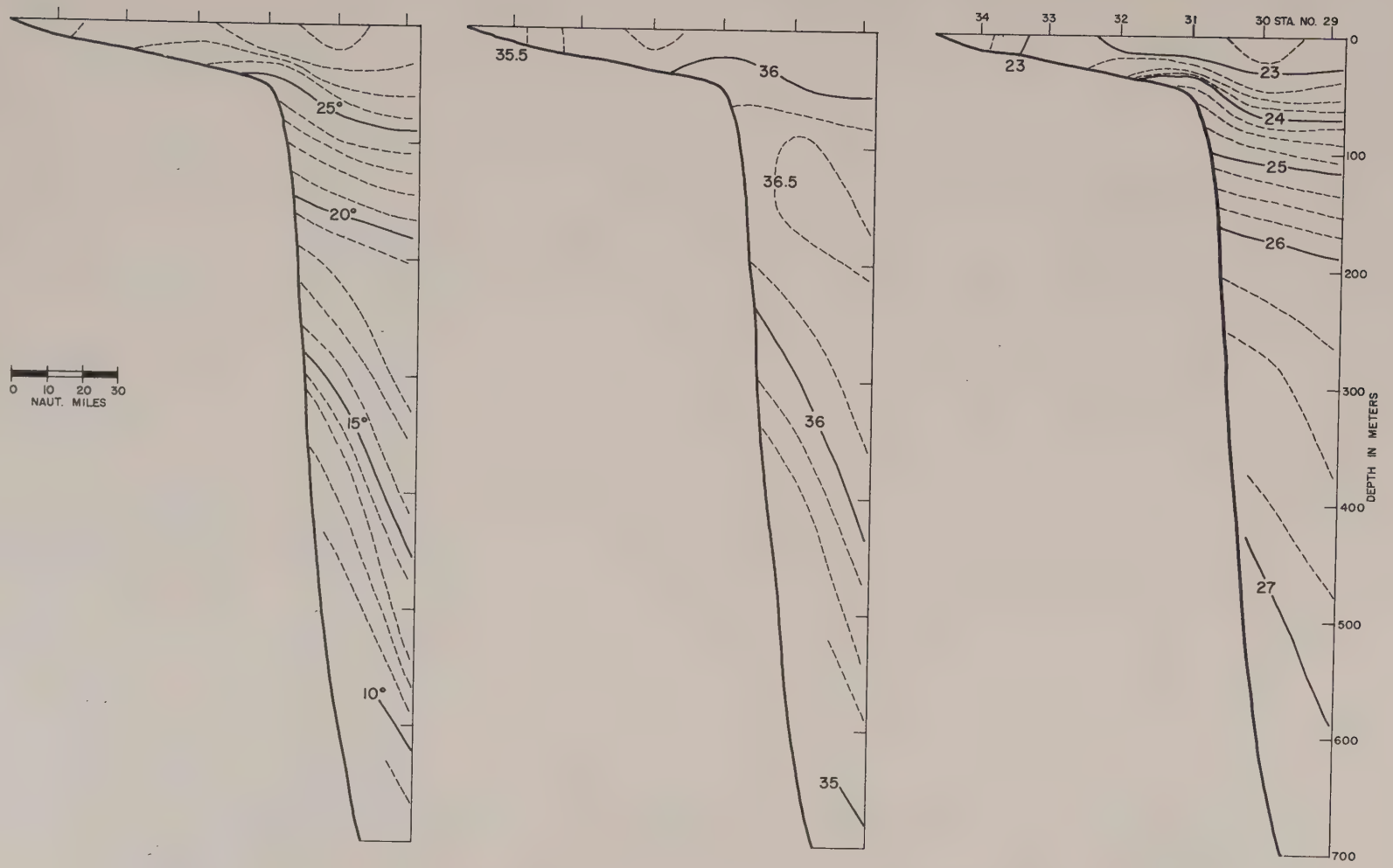

Figure 11.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 29, 30, 31, 32, 33, and 34 (Brunswick Section).

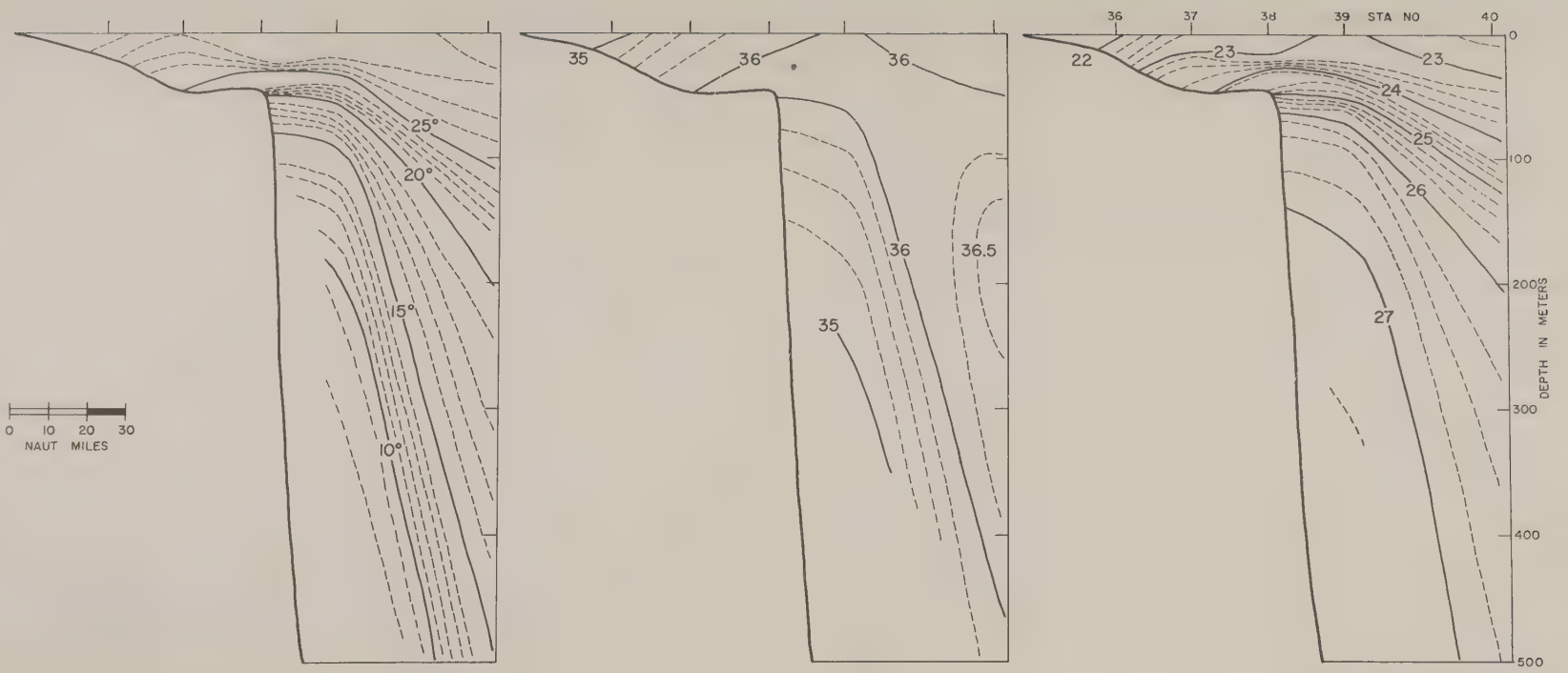

Figure 12.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 36, 37, 38, 39, and 40 (Savannah Section).

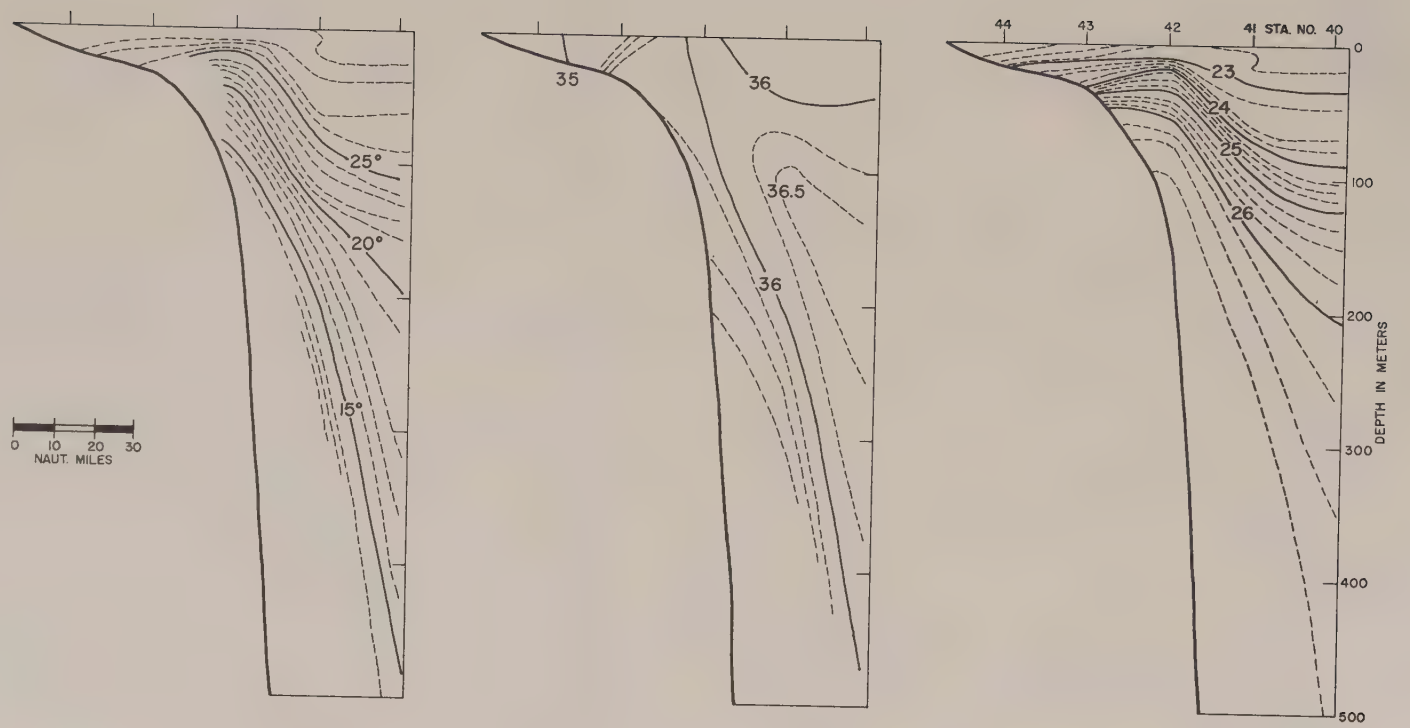

Figure 13.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 40, 41, 42, 43, and 44 (Charleston Section).

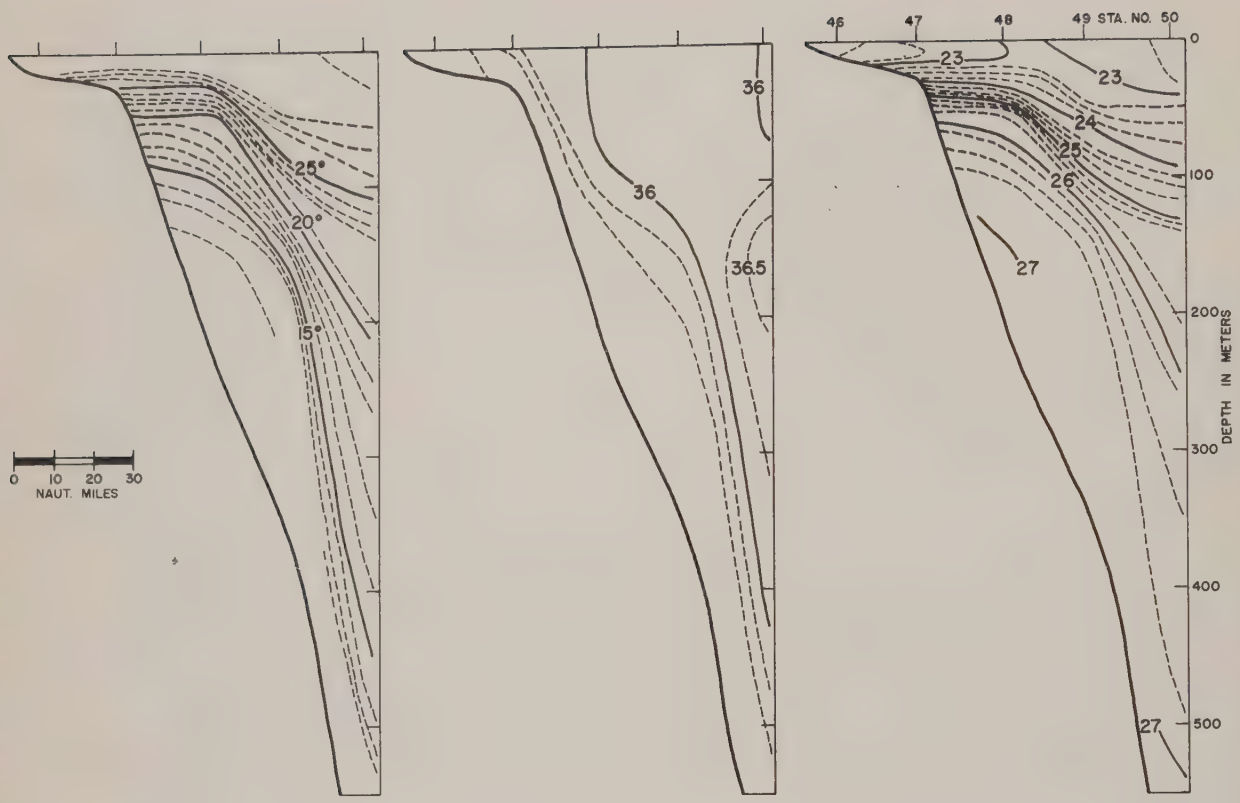

Figure 14.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 46, 47, 48, 49, and 50 (Cape Romain Section).

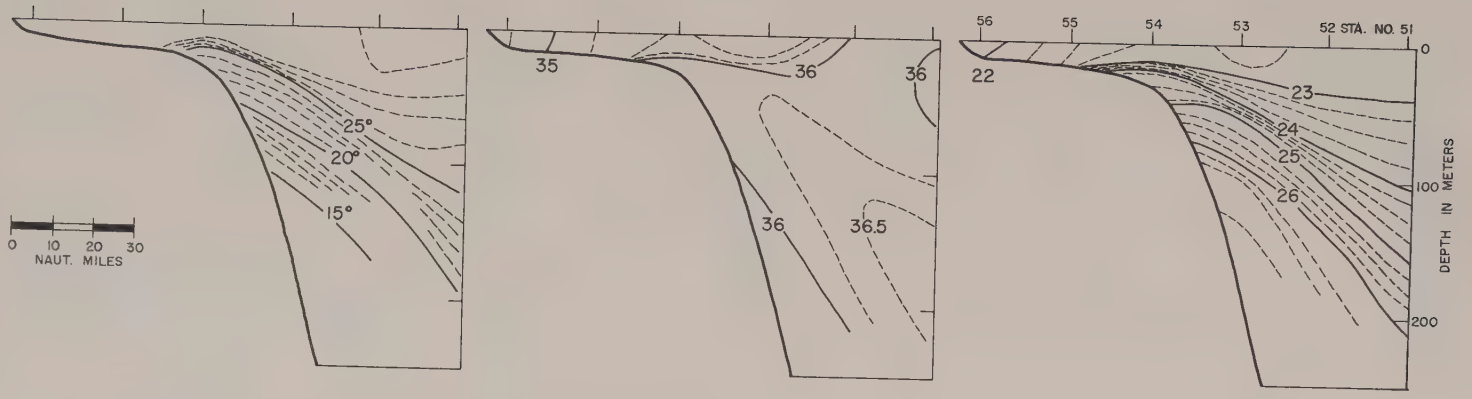

Figure 15.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 51, 52, 53, 54, 55, and 56 (Long Bay Section).

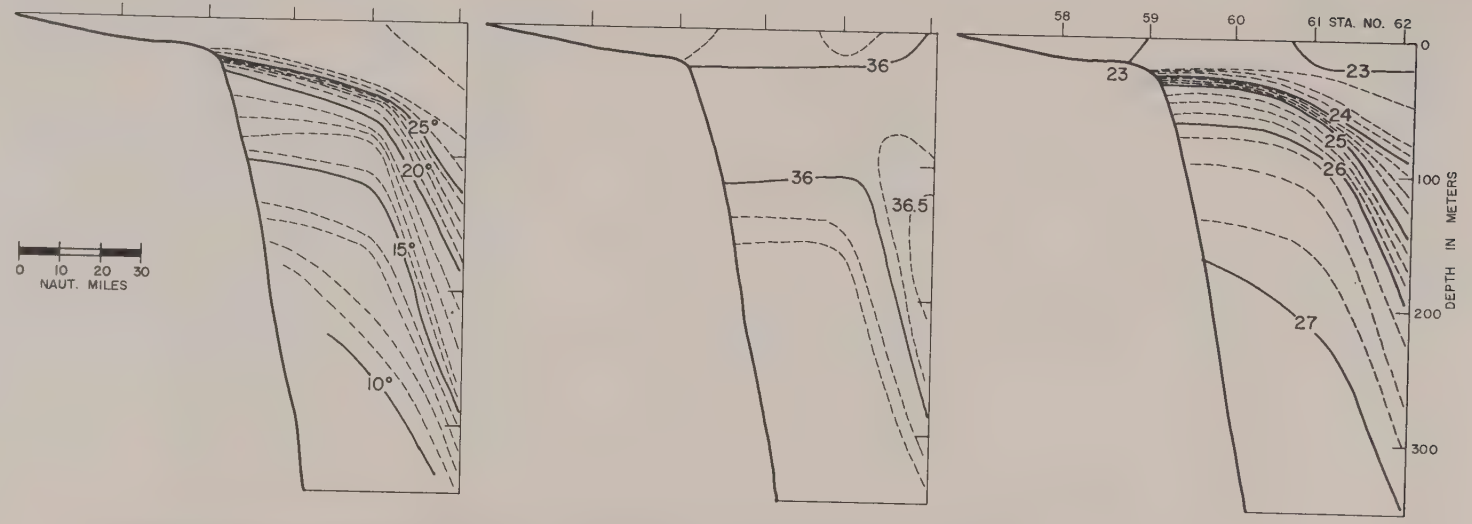

Figure 16.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 58, 59, 60, 61, and 62 (Cape Fear Section).

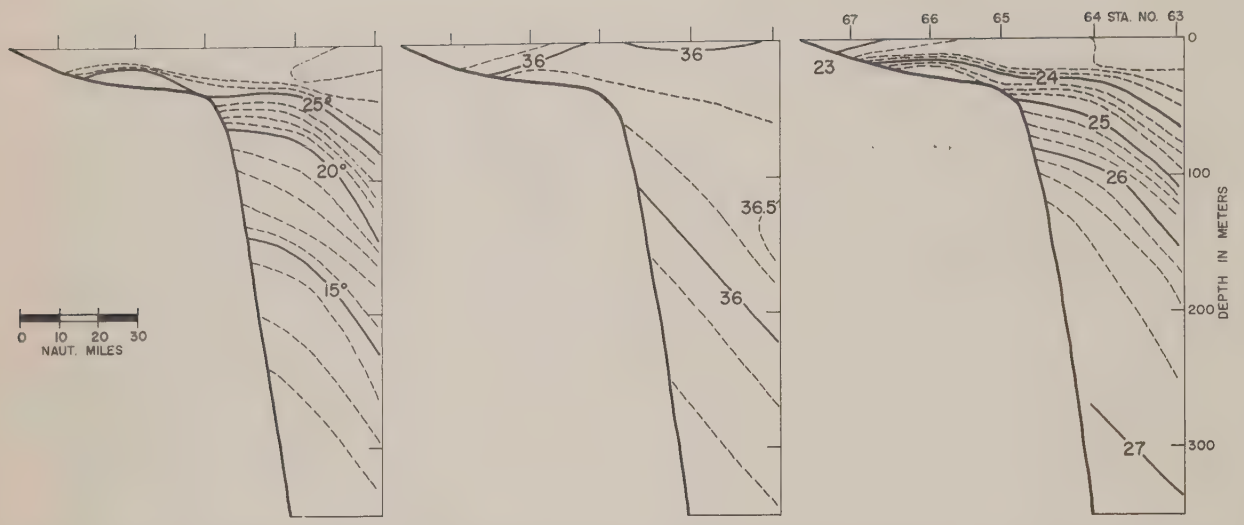

Figure 17.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 63, 64, 65, 66, and 67 (Onslow Bay Section).

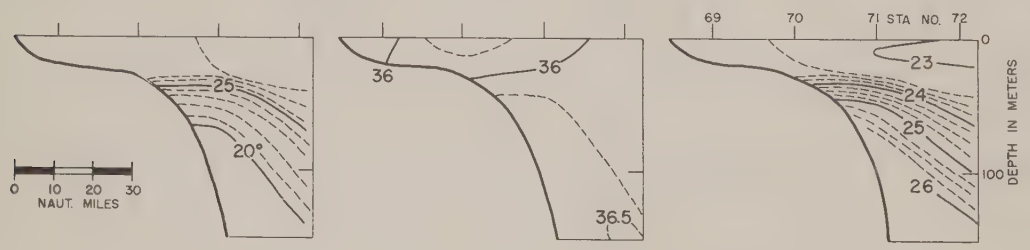

Figure 18.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 69, 70, 71, and 72 (Cape Lookout Section).

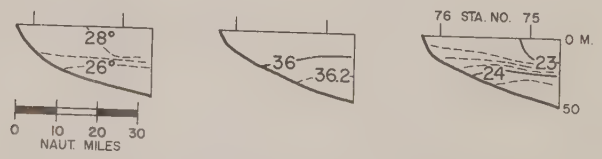

Figure 19.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 75 and 76 (Raleigh Bay Section).

STATION 1

DATE July 25, 1953 LAT. 27°00' N. LONG. 79°18'W. TIME 16
DEPTH 677 WIND 7 , 22 BAR. 16 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 01 CLOUDS: type 4 , amt. 4 SEA: dir. 23 , amt. 2
SWELL: dir. 27 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.80	35.97	22.88	5.56
10	28.67	35.93	22.89	5.58
20	28.51	35.95	22.96	5.63
49	27.29	35.97	23.38	4.79
98	24.68	36.35	24.48	4.17
147	22.24	36.60	25.38	3.70
196	20.19	36.64	25.98	3.63
245	18.87*	36.52*	26.23	3.77
295	18.42	36.45	26.29	3.89
393	16.81	36.24	26.53	4.13
492	13.91	35.75	26.80	3.53

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.80	35.97	22.88	5.56
10	28.67	35.93	22.89	5.58
20	28.51	35.95	22.96	5.63
30	28.12	35.96	23.10	5.30
50	27.23	35.98	23.40	4.78
75	25.88	36.19	23.99	4.44
100	24.57	36.36	24.52	4.14
150	22.09	36.61	25.43	3.69
200	20.05	36.63	26.01	3.64
250	19.11	36.53	26.18	3.78
300	18.37	36.45	26.31	3.92
400	16.65	36.21	26.54	4.12

STATION 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.0	0.5	-	1.4
10	1.3	0.2	0.5	0.0	1.3
20	0.3	0.1	1.0	-	1.3
49	0.8	0.0	1.0	1.3	-
98	0.9	0.1	1.5	-	0.4
147	0.8	0.6	2.5	-	1.5
196	1.0	0.7	5.5	0.5	1.2
245	1.9	0.5	1.5	3.1	-
295	-	1.3	6.0	-	1.0
393	-	1.2	5.0	5.5	0.2
492	1.6	1.3	8.0	-	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.0	0.5	-	1.4
10	1.3	0.2	0.5	0.0	1.3
20	0.3	0.1	1.0	0.3	1.3
30	0.5	<0.1	1.0	0.6	1.2
50	0.8	0.0	1.0	1.3	1.0
75	0.9	<0.1	1.5	1.2	0.7
100	0.9	0.1	1.5	1.0	0.4
150	0.8	0.6	2.5	0.7	1.5
200	1.0	0.7	5.5	0.7	1.2
250	1.9	0.5	1.5	3.2	1.1
300	1.8	1.3	6.0	4.0	1.0
400	1.7	1.2	5.0	5.5	0.2
500	1.6	1.3	8.0	-	1.1

STATION 2

DATE July 25, 1953 LAT. 27°01'N. LONG. 79°41'W. TIME 21
DEPTH 558 WIND 6 , 24 BAR. 15 AIR TEMP: dry 28.3°C, wet 25.0°C
HUMIDITY 77% WEATHER 03 CLOUDS: type 9 , amt. 5 SEA: dir. 22 , amt. 2
SWELL: dir. 20 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.91	35.88	22.78	4.60
9	28.81	35.88	22.81	4.59
18	28.79	35.88	22.82	4.54
46	27.92	35.93	23.14	4.75
90	25.22	36.36	24.32	4.23
135	21.81	36.61	25.51	3.63
179	18.95	36.53	26.22	3.53
222	16.75	36.11	26.44	3.28
265	13.72	35.71	26.81	3.07

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.91	35.88	22.78	4.60
10	28.81	35.88	22.81	4.58
20	28.75	35.88	22.83	4.55
30	28.50	35.90	22.93	4.63
50	27.70	35.97	23.24	4.71
75	26.21	36.23	23.92	4.41
100	24.42	36.44	24.63	4.05
150	20.77	36.59	25.78	3.61
200	17.98	36.32	26.30	3.40
250	14.87	35.85	26.67	3.14

STATION 3

DATE July 26, 1953 LAT. 27°00'N. LONG. 80°04'W. TIME 01
DEPTH 16 WIND 6 , 18 BAR. 16 AIR TEMP: dry 25.0°C, wet 22.8°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 5 , amt. 6 SEA: dir. 18 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.72	35.73	23.06	4.65
10	27.93	35.75	23.00	4.63

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.72	35.73	23.06	4.65
10	27.93	35.75	23.00	4.63

STATION 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.1	0.5	0.0	1.1
10	0.8	0.1	0.0	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.1	0.5	0.0	1.1
10	0.8	0.1	0.0	-	1.0

STATION 4

DATE July 26, 1953 LAT. 27°20'N. LONG. 80°04'W. TIME 04
DEPTH 22 WIND 5 , 18 BAR. 17 AIR TEMP: dry 26.1°C, wet 24.4°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 5 , amt. 6 SEA: dir. 18 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.52	36.00	23.32	4.65
10	27.10	36.00	23.46	4.56

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.52	36.00	23.32	4.65
10	27.10	36.00	23.46	4.56

STATION 5

DATE July 26, 1953 LAT. 27°40' N. LONG. 80°04' W. TIME 07
DEPTH 33 WIND 6 , 15 BAR. 16 AIR TEMP: dry 26.7 °C, wet 25.6 °C
HUMIDITY 92 % WEATHER 03 CLOUDS: type 3 , amt. 5 SEA: dir. 14 , amt. 1
SWELL: dir. 15 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	35.99	23.18	4.66
10	25.60	36.25	24.12	4.95
20	22.20	36.25	25.13	5.50
30	21.02	36.22	25.44	4.32

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	35.99	23.18	4.66
10	25.60	36.25	24.12	4.95
20	22.20	36.25	25.13	5.50
30	21.02	36.22	25.44	4.32

STATION 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.0	<0.5	-	-
10	1.2	0.1	1.0	0.4	0.2
20	2.1	0.2	1.0	0.0	0.8
30	1.5	0.7	3.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.0	<0.5	-	-
10	1.2	0.1	1.0	0.4	0.2
20	2.1	0.2	1.0	0.0	0.8
30	1.5	0.7	3.5	-	0.9

STATION 6

DATE July 26, 1953 LAT. 27°34' N. LONG. 79°39' W. TIME 11
DEPTH 540 WIND 4 , 14 BAR. 16 AIR TEMP: dry 27.8 °C, wet 25.0 °C
HUMIDITY 80 % WEATHER 02 CLOUDS: type 9 , amt. 5 SEA: dir. 14 , amt. 1
SWELL: dir. 15 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.70**	35.84	22.82	5.57
8	28.67	35.84	22.83	5.50
16	28.73	35.86	22.82	4.64
40	28.30	35.93	23.02	4.74
78	-	36.15	-	4.61
113	24.98	36.42	24.44	4.30
148	21.63	36.65	25.59	3.72
181	19.56	36.51	26.05	3.51
213	18.26	36.36	26.27	3.45
274	14.47	35.86	26.77	3.16
333	10.82	35.26	27.03	2.98

** From BT

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.70	35.84	22.82	5.57
10	28.69	35.84	22.82	5.24
20	28.68	35.87	22.85	4.67
30	28.52	35.89	22.91	4.69
50	27.97	35.98	23.16	4.73
75	26.93	36.13	23.61	4.63
100	25.70	36.32	24.14	4.45
150	21.48	36.64	25.63	3.70
200	18.85	36.43	26.17	3.48
250	15.96	36.07	26.60	3.26
300	12.86	35.61	26.91	3.07

STATION 7

DATE July 26, 1953 LAT. 27°40'N. LONG. 79°19'W. TIME 14
DEPTH 553 WIND 5 , 15 BAR. 18 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 02 CLOUDS: type 9 , amt. 2 SEA: dir. 16 , amt. 3
SWELL: dir. 17 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.66	35.97	22.93	4.56
10	28.66	35.99	22.94	4.56
20	28.68	35.97	22.92	4.60
50	27.57	36.00	23.31	4.74
100	24.38	36.42	24.62	3.93
150	22.21	36.64	25.42	3.78
200	19.90	36.64	26.06	3.92
250	18.72	36.51	26.26	3.70
300	18.36	36.44	26.30	3.72
400	16.85	36.27	26.54	4.09
500	13.16	35.66	26.89	3.24

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.66	35.97	22.93	4.56
10	28.66	35.99	22.94	4.56
20	28.68	35.97	22.92	4.60
30	28.38	35.98	23.03	-
50	27.57	36.00	23.31	4.74
75	25.93	36.21	23.99	4.25
100	24.38	36.42	24.62	3.93
150	22.21	36.64	25.42	3.78
200	19.90	36.64	26.06	3.92
250	18.72	36.51	26.26	3.70
300	18.36	36.44	26.30	3.72
400	16.85	36.27	26.54	4.09
500	13.16	35.66	26.89	3.24

STATION 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.2	0.0	1.3	0.5
10	3.2	<0.1	0.0	1.5	-
20	1.2	0.0	1.0	0.0	0.2
50	2.1	0.1	1.0	1.1	0.7
100	1.0	0.2	1.5	-	0.3
150	-	0.6	4.0	2.5	0.6
200	1.3	0.5	5.0	-	0.5
250	2.0	0.8	7.0	3.4	1.0
300	2.2	0.8	3.0	0.0	0.3
400	2.5	0.8	1.5	1.1	0.9
500	2.2	-	12.0	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.2	0.0	1.3	0.5
10	3.2	<0.1	0.0	1.5	0.3
20	1.2	0.0	1.0	0.0	0.2
30	1.5	<0.1	1.0	0.4	0.4
50	2.1	0.1	1.0	1.1	0.7
75	1.6	0.2	1.5	1.5	0.5
100	1.0	0.2	1.5	1.9	0.3
150	1.2	0.6	4.0	2.5	0.6
200	1.3	0.5	5.0	2.9	0.5
250	2.0	0.8	7.0	3.4	1.0
300	2.2	0.8	3.0	0.0	0.3
400	2.5	0.8	1.5	1.1	0.9
500	2.2	-	12.0	-	1.0

STATION 8

DATE July 26, 1953 LAT. 28°18'N. LONG. 79°26'W. TIME 22
DEPTH 823 WIND 7 , 14 BAR. 17 AIR TEMP: dry 30.0 °C, wet 27.2 °C
HUMIDITY 81% WEATHER 01 CLOUDS: type 1 , amt. 3 SEA: dir. 14 , amt. 3
SWELL: dir. 16 , amt. 2 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.82	35.94	22.85	4.66
9	28.83	35.95	22.86	4.56
18	28.60	35.95	22.93	4.58
44	27.47	36.02	23.36	4.72
88	26.50	36.06	23.70	4.66
131	24.08	36.45	24.73	4.03
173	21.29	36.67	25.70	3.72
257	19.24	36.57	26.18	3.77
331	16.88	36.20	26.48	3.44
420	14.91	35.90	26.70	3.57
580	10.58	35.26	27.07	2.91
660	9.24	35.08	27.16	2.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.82	35.94	22.85	4.66
10	28.81	35.95	22.86	4.56
20	28.50	35.96	22.97	4.60
30	28.03	35.99	23.15	4.66
50	27.35	36.03	23.40	4.72
75	26.85	36.05	23.58	4.70
100	25.90	36.13	23.94	4.55
150	22.63	36.59	25.27	3.86
200	20.70	36.66	25.86	3.73
250	19.44	36.59	26.14	3.76
300	17.79	36.36	26.38	3.58
400	15.38	35.97	26.65	3.55
500	12.66	35.57	26.92	3.22
600	10.19	35.21	27.10	2.91

STATION 9

DATE July 27, 1953 LAT. 28°20'N. LONG. 79°48'W. TIME 02
DEPTH 393 WIND 5 , 15 BAR. 18 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84 % WEATHER 01 CLOUDS: type 1 , amt. 2 SEA: dir. 14 , amt. 2
SWELL: dir. 12 , amt. 2 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.12	35.93	22.74	4.52
7	29.03	35.91	22.76	4.51
15	29.05	35.91	22.75	4.63
38	28.27	35.91	23.01	4.74
73	26.81	36.04	23.58	4.66
103	24.55	36.39	24.55	4.19
130	20.75	36.35	25.61	3.81
151	17.48	36.13	26.28	3.52
170	14.47	35.82	26.74	3.16

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.12	35.93	22.74	4.52
10	29.04	35.91	22.75	4.56
20	28.94	35.91	22.79	4.66
30	28.56	35.91	22.92	4.72
50	27.91	35.92	23.14	4.73
75	26.72	36.07	23.63	4.65
100	24.87	36.37	24.44	4.23
150	17.64	36.14	26.25	3.54

STATION 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.1	4.5	-	1.0
7	1.9	0.2	1.5	1.0	0.9
15	0.6	<0.1	<0.5	3.1	1.4
38	1.2	0.2	1.0	0.0	1.3
73	0.7	0.0	1.0	-	0.3
103	1.0	0.2	2.5	2.0	0.8
130	1.4	0.6	1.0	-	1.4
151	1.9	0.7	5.0	-	0.6
170	2.6	1.1	14.0	-	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.1	4.5	-	1.0
10	1.4	0.1	1.0	1.8	1.1
20	0.7	0.1	0.5	2.4	1.4
30	1.0	0.2	1.0	1.1	1.3
50	1.0	0.1	1.0	0.4	1.0
75	0.7	0.0	1.0	1.2	0.3
100	1.0	0.2	2.5	2.0	0.8
150	1.9	0.7	5.0	-	0.6

STATION 10

DATE July 27, 1953 LAT. 28°20'N. LONG. 80°10'W. TIME 06
DEPTH 37 WIND 5 , 15 BAR. 18 AIR TEMP: dry 26.6°C, wet 25.0°C
HUMIDITY 88 % WEATHER 01 CLOUDS: type 1 , amt. 2 SEA: dir. 15 , amt. 2
SWELL: dir. 12 , amt. 1 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.77	36.09	23.31	4.79
10	27.17	36.12	23.53	4.84
20	22.12	36.11	25.05	4.51

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.77	36.09	23.31	4.79
10	27.17	36.12	23.53	4.84
20	22.12	36.11	25.05	4.51

STATION 11

DATE July 27, 1953 LAT. 28°20'N. LONG. 80°33'W. TIME 08
DEPTH 11 WIND 6 , 15 BAR. 17 AIR TEMP: dry 26.1°C, wet 25.0°C
HUMIDITY 91 % WEATHER 01 CLOUDS: type 1 , amt. 2 SEA: dir. 15 , amt. 2
SWELL: dir. - , amt. - VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.47	36.13	23.44	4.46

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.47	36.13	23.44	4.46

STATION 11

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.3	0.4	0.0	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.3	0.4	0.0	-	0.2

STATION 12

DATE July 27, 1953 LAT. 28°41'N. LONG. 80°25'W. TIME 12
DEPTH 20 WIND 4 , 16 BAR. 19 AIR TEMP: dry 27.2 °C, wet 25.0 °C
HUMIDITY 84 % WEATHER 02 CLOUDS: type 4 , amt. 4 SEA: dir. 15 , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.28	35.93	23.35	4.71
10	27.29	35.97	23.38	4.66

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.28	35.93	23.35	4.71
10	27.29	35.97	23.38	4.66

STATION 13

DATE July 27, 1953 LAT. 29°00'N. LONG. 80°32'W. TIME 14
DEPTH 20 WIND 4 , 14 BAR. 19 AIR TEMP: dry 28.3°C, wet 26.7°C
HUMIDITY 88 % WEATHER 03 CLOUDS: type 3 , amt. 4 SEA: dir. 14 , amt. 1
SWELL: dir. 16 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.18	35.97	23.41	4.72
10	27.14	36.01	23.45	4.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.18	35.97	23.41	4.72
10	27.14	36.01	23.45	4.96

STATION 13

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.5	0.4	1.0	1.2	0.6
10	2.2	0.7	3.5	0.5	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.5	0.4	1.0	1.2	0.6
10	2.2	0.7	3.5	0.5	0.3

STATION 14

DATE July 27, 1953 LAT. 29°00' N. LONG. 80°11' W. TIME 17
DEPTH 66 WIND 4 , 17 BAR. 20 AIR TEMP: dry 29.4 °C, wet 27.2 °C
HUMIDITY 84 % WEATHER 03 CLOUDS: type 8 , amt. 3 SEA: dir. 14 , amt. 1
SWELL: dir. 10 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.45	36.04	23.05	4.72
10	28.28	36.02	23.09	4.71
20	27.24	36.08	23.47	4.86
30	22.86	36.22	24.92	5.21
50	21.51	35.35	25.40	4.47

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.45	36.04	23.05	4.72
10	28.28	36.02	23.09	4.71
20	27.24	36.08	23.47	4.86
30	22.86	36.22	24.92	5.21
50	21.51	36.35	25.40	4.47

STATION 15

DATE July 27, 1953 LAT. 28°56'N. LONG. 79°46'W. TIME 21
DEPTH 765 WIND 4 , 15 BAR. 19 AIR TEMP: dry 29.4°C, wet 26.7°C
HUMIDITY 81% WEATHER 01 CLOUDS: type 2 , amt. 3 SEA: dir. 14 , amt. 1
SWELL: dir. 10 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.37	35.84	22.59	4.63
8	29.08	35.87	22.71	4.72
16	28.98	35.90	22.77	4.82
38	28.23	35.97	23.07	4.79
77	26.69	36.02	23.61	4.72
115	25.52	36.20	24.11	4.37
151	24.22	36.52	24.75	4.03
220	20.36	36.60	25.90	3.56
335	12.77	35.55	26.88	3.14
400	11.02	35.32	27.04	3.07

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.37	35.84	22.59	4.63
10	29.07	35.88	22.72	4.75
20	28.85	35.91	22.82	4.82
30	28.51	35.95	22.96	4.80
50	27.72	35.99	23.25	4.77
75	26.76	36.01	23.58	4.73
100	26.01	36.11	23.89	4.51
150	24.26	36.51	24.73	4.04
200	21.52	36.60	25.59	3.63
250	18.25	36.33	26.25	3.41
300	14.70	35.81	26.68	3.23
400	11.02	35.32	27.04	3.07

STATION 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	<0.1	0.5	1.2	0.4
8	1.2	0.1	1.0	-	1.2
16	1.4	-	0.0	18.2	1.0
38	1.5	0.0	0.5	11.2	-
77	1.0	0.3	0.0	1.7	0.7
115	0.8	0.7	0.5	0.0	0.8
151	1.5	0.2	1.5	0.0	0.6
220	1.5	0.5	5.5	-	0.7
335	2.6	1.6	13.5	-	0.6
400	2.6	1.7	15.0	1.1	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	<0.1	0.5	1.2	0.4
10	1.2	0.1	1.0	11.8	1.2
20	1.4	<0.1	0.0	16.9	1.0
30	1.5	<0.1	<0.5	13.7	0.9
50	1.3	0.1	<0.5	8.3	0.8
75	1.0	0.3	0.0	2.2	0.7
100	0.9	0.5	<0.5	0.7	0.8
150	1.5	0.2	1.5	0.0	0.6
200	1.5	0.4	4.5	0.2	0.7
250	1.8	0.8	7.5	0.5	0.7
300	2.2	1.3	11.0	0.7	0.6
400	2.6	1.7	15.0	1.1	0.5

STATION 16

DATE July 28, 1953 LAT. 29°00'N. LONG. 79°26'W. TIME 01
DEPTH 860 WIND 3 , 14 BAR. 18 AIR TEMP: dry 28.8°C, wet 26.1°C
HUMIDITY 81% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. 14 , amt. 1
SWELL: dir. 11 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.88	35.95	22.84	4.58
10	28.95	35.93	22.80	4.56
20	28.87	35.94	22.83	4.59
50	27.65	35.99	23.27	4.77
100	25.82	36.18	24.00	4.45
200	21.27	36.65	25.69	4.17
300	18.40	36.40	26.26	3.84
400	16.55	36.15	26.52	3.53
500	14.09	35.81	26.81	3.84
600	10.77	35.26	27.04	2.92
800	8.14	34.95	27.23	3.07

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.88	35.95	22.84	4.58
10	28.95	35.93	22.80	4.56
20	28.87	35.94	22.83	4.59
30	28.45	35.95	22.98	4.68
50	27.65	35.99	23.27	4.77
75	26.77	36.08	23.63	4.59
100	25.82	36.18	24.00	4.45
150	23.34	36.51	25.00	4.32
200	21.27	36.65	25.69	4.17
250	19.71	36.53	26.02	4.00
300	18.40	36.40	26.26	3.84
400	16.55	36.15	26.52	3.53
500	14.09	35.81	26.81	3.84
600	10.77	35.26	27.04	2.92
800	8.14	34.95	27.23	3.07

STATION 17

DATE July 28, 1953 LAT. 29°36'N. LONG. 79°38'W. TIME 05
DEPTH 832 WIND 4 , 18 BAR. 18 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 03 CLOUDS: type 3 , amt. 7 SEA: dir. 16 , amt. 1
SWELL: dir. 12 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.04	35.93	22.77	5.50
9	28.92	35.90	22.79	5.47
18	28.73	35.86	22.82	4.58
46	27.90	36.02	23.22	4.76
91	26.30	36.08	23.77	4.58
178	21.54	36.65	25.62	3.93
263	18.30*	36.47	26.34	4.76
346	17.31	36.29	26.45	4.47
428	15.45	36.11	26.74	4.10
509	12.40	35.55	26.96	4.01
670	8.51	35.05	27.25	3.97

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.04	35.93	22.77	5.50
10	28.90	35.89	22.79	5.35
20	28.67	35.87	22.85	4.60
30	28.39	35.94	22.99	4.68
50	27.78	36.02	23.25	4.75
75	26.94	36.04	23.54	4.66
100	25.74	36.17	24.02	4.44
150	22.91	36.55	25.15	3.97
200	20.78	36.60	25.79	4.25
250	19.45	36.50	26.07	4.71
300	18.30	36.39	26.28	4.64
400	16.22	36.22	26.65	4.19
500	12.70	35.60	26.94	4.02
600	9.85	35.17	27.13	3.98

STATION 17

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.1	0.0	0.0	-	0.5
9	1.4	0.2	0.0	-	0.1
18	1.5	0.1	0.0	-	0.6
46	1.3	0.1	0.5	-	0.2
91	0.9	0.2	0.0	0.6	0.7
178	1.2	0.3	3.5	-	0.4
263	1.3	0.2	2.5	-	-
346	1.7	0.9	1.5	-	0.1
428	1.7	0.8	7.5	0.5	0.2
509	2.2	1.5	11.5	-	0.7
670	2.9	2.0	3.5	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.1	0.0	0.0	-	0.5
10	1.4	0.2	0.0	-	0.1
20	1.5	0.1	0.0	-	0.6
30	1.4	0.1	<0.5	-	0.4
50	1.3	0.1	0.5	-	0.3
75	1.0	0.2	<0.5	-	0.5
100	0.9	0.2	0.5	0.6	0.7
150	1.1	0.3	2.5	-	0.5
200	1.2	0.3	3.5	-	0.4
250	1.3	0.2	2.5	-	0.3
300	1.5	0.5	2.0	-	0.2
400	1.7	0.8	5.5	0.5	0.2
500	2.2	1.4	11.0	-	0.7
600	2.6	1.8	7.0	-	-

STATION 18

DATE July 28, 1953 LAT. 29°36'N. LONG. 80°00'W. TIME 09
DEPTH 558 WIND 2 , 18 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 1 , amt. 4 SEA: dir. 18 , amt. 1
SWELL: dir. 14 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.21	35.91	22.70	4.65
8	29.12	35.90	22.72	4.57
17	29.03	35.90	22.75	4.63
41	28.01	35.99	23.16	4.75
80	25.97	36.20	23.97	4.63
117	23.74	36.40	24.80	4.19
152	19.43	-	-	4.09
218	12.41	35.52	26.93	3.81

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.21	35.91	22.70	4.65
10	29.11	35.90	22.72	4.58
20	28.91	35.91	22.80	4.65
30	28.50	35.95	22.97	4.71
50	27.57	36.04	23.34	4.75
75	26.25	36.17	23.86	4.67
100	24.75	36.32	24.43	4.40
150	19.67	36.34	25.89	4.10
200	14.30	35.80	26.76	3.90

STATION 19

DATE July 28, 1953 LAT. 29°40'N. LONG. 80°22'W. TIME 12
DEPTH 46 WIND 2 , 17 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 2 , amt. 4 SEA: dir. 17 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.78	36.02	23.25	4.58
10	27.81	36.02	23.24	4.65
20	27.81	36.02	23.24	4.74
30	25.57	36.26	24.14	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.78	36.02	23.25	4.58
10	27.81	36.02	23.24	4.65
20	27.81	36.02	23.24	4.74
30	25.57	36.26	24.14	4.91

STATION 19

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.8	0.4	<0.5	0.0	1.7
10	2.5	0.2	1.5	0.0	1.8
20	1.5	0.3	0.5	0.0	0.2
30	2.1	0.1	1.0	1.4	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.8	0.4	<0.5	0.0	1.7
10	2.5	0.2	1.5	0.0	1.8
20	1.5	0.3	0.5	0.0	0.2
30	2.1	0.1	1.0	1.4	0.7

STATION 20

DATE July 28, 1953 LAT. 29°40'N. LONG. 80°45'W. TIME 14
DEPTH 29 WIND 2, 20 BAR. 18 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER - CLOUDS: type -, amt. - SEA: dir. -, amt. -
SWELL: dir. 18, amt. 1 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.49	36.00	23.33	4.91
10	27.30	36.02	23.41	4.67
20	27.23	36.02	23.43	4.58

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.49	36.00	23.33	4.91
10	27.30	36.02	23.41	4.67
20	27.23	36.02	23.43	4.58

STATION 21

DATE July 28, 1953 LAT. 29°40'N. LONG. 81°08'W. TIME 17
DEPTH 18 WIND 2 , 14 BAR. 18 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 81% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.34	35.73	23.18	4.65
10	26.81	35.91	23.48	4.51

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.34	35.73	23.18	4.65
10	26.81	35.91	23.48	4.51

STATION 21

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.0	0.6	0.0	3.3	0.5
10	1.9	0.5	0.0	1.9	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.0	0.6	0.0	3.3	0.5
10	1.9	0.5	0.0	1.9	0.9

STATION 22

DATE July 28, 1953 LAT. 30°00'N. LONG. 81°14'W. TIME 21
DEPTH 13 WIND 6 , 09 BAR. 17 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 02 CLOUDS: type 6 , amt. 2 SEA: dir. 09 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.01	35.61	22.87	4.84
10	27.34	35.86	23.28	4.81

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.01	35.61	22.87	4.84
10	27.34	35.86	23.28	4.81

STATION 23

DATE July 28, 1953 LAT. 30°20'N. LONG. 81°19'W. TIME 22
DEPTH 15 WIND 4 , 10 BAR. 17 AIR TEMP: dry 31.1°C, wet 28.9°C
HUMIDITY 85% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 10 , amt. 1
SWELL: dir. 10 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.20	35.48	22.71	4.94
10	27.67	35.75	23.09	4.68

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.20	35.48	22.71	4.94
10	27.67	35.75	23.09	4.68

STATION 23

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.3	0.6	0.5	1.1	1.2
10	1.8	0.6	1.0	1.8	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.3	0.6	0.5	1.1	1.2
10	1.8	0.6	1.0	1.8	0.8

STATION 24

DATE July 29, 1953 LAT. 30°20'N. LONG. 80°58'W. TIME 01
DEPTH 29 WIND 4 , 17 BAR. 17 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 14 , amt. 2
SWELL: dir. 16 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.71	35.89	23.18	4.91
10	27.26	35.86	23.30	4.75
20	27.05	35.91	23.41	3.14

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.71	35.89	23.18	4.91
10	27.26	35.86	23.30	4.75
20	27.05	35.91	23.41	3.14

STATION 25

DATE July 29, 1953 LAT. 30°20'N. LONG. 80°35'W. TIME 03
DEPTH 35 WIND 4 , 20 BAR. 18 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 19 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.99	35.91	23.10	4.72
10	27.72	35.90	23.18	4.77
20	26.16	36.06	23.80	5.47

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.99	35.91	23.10	4.72
10	27.72	35.90	23.18	4.77
20	26.16	36.06	23.80	5.47

STATION 25

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.0	-	0.4	-
10	1.2	0.5	0.5	0.3	0.1
20	1.6	0.4	0.5	0.0	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.0	-	0.4	-
10	1.2	0.5	0.5	0.3	0.1
20	1.6	0.4	0.5	0.0	1.6

STATION 26

DATE July 29, 1953 LAT. 30°18'N. LONG. 80°12'W. TIME 06
DEPTH 192 WIND 4 , 14 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. 14 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.10	35.95	23.10	4.69
10	28.15	35.95	23.08	4.77
19	27.86	36.00	23.21	4.82
28	27.51	36.02	23.34	-
47	25.72	36.08	23.96	4.45
70	20.59	36.04	25.42	5.12
89	17.57	36.08	26.22	3.70
133	13.57	35.68	26.82	3.16

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.10	35.95	23.10	4.69
10	28.15	35.95	23.08	4.77
20	27.84	36.00	23.22	4.81
30	27.43	36.03	23.38	4.71
50	24.96	36.07	24.18	4.52
75	19.72	36.06	25.66	4.87
100	16.18	36.04	26.52	3.48

STATION 27

DATE July 29, 1953 LAT. 30°19'N. LONG. 79°50'W. TIME 09
DEPTH 640 WIND 0 , 00 BAR. 18 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 00 , amt. 0
SWELL: dir. 36 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.03	35.88	22.74	4.60
8	29.02	35.88	22.74	4.65
16	28.72	35.84	22.81	4.63
39	28.12	35.95	23.09	4.74
76	26.14	36.09	23.83	4.56
111	24.28	36.45	24.67	4.05
150	21.44	36.61	25.62	3.56
208	17.63	36.33	26.40	3.61
269	15.67	36.04	26.64	3.81
337	13.50	35.68	26.83	3.26
383	11.20	35.34	27.02	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.03	35.88	22.74	4.60
10	28.94	35.87	22.76	4.64
20	28.65	35.86	22.85	4.66
30	28.41	35.91	22.96	4.72
50	27.53	35.97	23.30	4.73
75	26.19	36.08	23.81	4.57
100	24.93	36.36	24.41	4.20
150	21.44	36.61	25.62	3.56
200	18.04	36.37	26.33	3.59
250	16.28	36.13	26.57	3.82
300	14.86	35.90	26.71	3.53

STATION 27

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	0.2	0.5	0.4	1.7
8	1.5	0.1	0.5	-	1.6
16	0.7	0.0	-	-	0.9
39	0.8	0.2	0.0	4.1	0.4
76	1.4	0.2	<0.5	3.1	0.8
111	0.7	0.6	2.0	-	1.2
150	2.0	0.6	2.5	-	1.4
208	1.8	0.7	6.5	1.3	-
269	2.2	0.9	8.0	-	0.3
337	1.3	1.2	11.0	0.1	1.1
383	1.6	1.7	7.5	1.0	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	0.2	0.5	0.4	1.7
10	1.3	0.1	0.5	1.4	1.4
20	0.7	<0.1	0.5	2.3	0.8
30	0.8	0.1	<0.5	3.2	0.6
50	1.0	0.2	<0.5	3.8	0.5
75	1.4	0.2	<0.5	3.1	0.8
100	0.9	0.5	1.5	2.8	1.1
150	2.0	0.6	2.5	2.1	1.4
200	1.8	0.7	6.0	1.4	0.9
250	2.1	0.8	7.5	0.9	0.5
300	1.8	1.0	9.5	0.5	0.7

STATION 28

DATE July 29, 1953 LAT. 30°20'N. LONG. 79°27'W. TIME 13
DEPTH 768 WIND 3 , 08 BAR. 19 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 01 CLOUDS: type 8 , amt. 1 SEA: dir. 00 , amt. 0
SWELL: dir. 11 , amt. 2 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.88	35.90	22.80	4.77
10	28.86	35.90	22.81	4.74
20	28.84	35.90	22.81	4.75
50	27.33	35.97	23.36	4.90
100	25.13	36.29	24.30	4.29
200	20.05	36.53	25.93	4.93
300	18.38	36.56	26.39	4.76
400	17.41*	36.32*	26.45	4.44
500	15.38	35.95	26.64	3.64
600	13.92	35.73	26.79	3.63
800	7.44*	34.88	27.28	3.21

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.88	35.90	22.80	4.77
10	28.86	35.90	22.81	4.74
20	28.84	35.90	22.81	4.75
30	28.32	35.91	22.99	4.84
50	27.33	35.97	23.36	4.90
75	26.26	36.15	23.84	4.51
100	25.13	36.29	24.30	4.29
150	22.16	36.44	25.29	4.66
200	20.05	36.53	25.93	4.93
250	19.13	36.55	26.19	4.89
300	18.38	36.56	26.39	4.76
400	16.80	36.22	26.52	4.44
500	15.38	35.95	26.64	3.64
600	13.92	35.73	26.79	3.63
800	-	34.88	-	3.21

STATION 29

DATE July 29, 1953 LAT. 30°59'N. LONG. 79°15'W. TIME 18
DEPTH 786 WIND 2 , 07 BAR. 20 AIR TEMP: dry 31.7°C, wet 27.2°C
HUMIDITY 72% WEATHER 01 CLOUDS: type 3 , amt. 1 SEA: dir. 00 , amt. 0
SWELL: dir. 12 , amt. 2 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.28	35.75	22.55	4.72
10	28.79	35.81	22.76	4.66
20	28.63	35.84	22.84	4.72
49	27.29	35.95	23.36	4.79
98	24.51	36.44	24.60	4.85
195	19.19	36.51	26.14	4.54
292	18.26	36.44	26.33	4.76
388	16.26	36.13	26.57	4.01
484	13.44	35.64	26.82	3.26
580	10.49	35.17	27.02	3.10
675	8.19	34.94	27.22	3.16

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.28	35.75	22.55	4.72
10	28.79	35.81	22.76	4.66
20	28.63	35.84	22.84	4.72
30	28.19	35.86	23.00	4.75
50	27.23	35.96	23.39	4.79
75	25.81	36.25	24.06	4.84
100	24.36	36.44	24.64	4.84
150	21.11	36.49	25.62	4.68
200	19.17	36.51	26.15	4.55
250	18.80	36.50	26.24	4.65
300	18.11	36.42	26.35	4.69
400	15.90	36.08	26.62	3.89
500	13.00	35.56	26.84	3.24
600	9.92	35.10	27.06	3.12

STATION 29

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.0	0.0	-	0.8
10	0.3	0.3	0.5	-	1.5
20	0.8	<0.1	0.5	1.6	0.6
49	1.3	0.6	0.0	3.9	-
98	-	0.5	0.5	-	0.6
195	1.2	0.2	3.0	-	0.5
292	1.2	0.3	1.0	1.8	1.1
388	1.4	1.3	2.5	-	1.3
484	2.3	1.5	3.5	-	0.2
580	-	1.9	-	-	-
675	-	2.1	23.0	3.5	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.0	0.0	-	0.8
10	0.3	0.3	0.5	-	1.5
20	0.8	<0.1	0.5	1.6	0.6
30	1.0	0.2	<0.5	2.4	0.6
50	1.3	0.6	0.0	3.9	0.6
75	1.3	0.5	<0.5	-	0.6
100	1.3	0.5	0.5	-	0.6
150	1.2	0.3	2.0	-	0.6
200	1.2	0.2	3.0	-	0.5
250	1.2	0.3	2.0	-	0.8
300	1.2	0.4	1.0	1.8	1.1
400	1.5	1.3	2.5	-	1.2
500	2.3	1.5	4.0	-	0.2
600	-	1.9	15.0	3.5	-

STATION 30

DATE July 29, 1953 LAT. 30°57'N. LONG. 79°37'W. TIME 22
DEPTH 585 WIND 4 , 11 BAR. 19 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 3 , amt. 1 SEA: dir. 09 , amt. 1
SWELL: dir. 04 , amt. 2 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.26	35.82	22.61	4.65
10	29.36	35.89	22.63	4.60
19	29.04	35.85	22.71	4.72
47	27.66	35.97	23.26	4.74
92	24.24	36.51	24.73	4.17
137	21.27	36.60	25.66	3.58
182	18.93	36.46	26.17	3.45
270	16.42	36.11	26.52	3.44
356	12.90	35.55	26.86	3.23
442	11.13	35.32	27.02	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.26	35.82	22.61	4.65
10	29.36	35.89	22.63	4.60
20	29.00	35.85	22.72	4.72
30	28.57	35.88	22.89	4.73
50	27.42	36.02	23.37	4.70
75	25.48	36.36	24.24	4.38
100	23.67	36.54	24.92	4.06
150	20.52	36.56	25.83	3.53
200	18.51	36.41	26.24	3.45
250	17.09	36.21	26.44	3.44
300	14.99	35.88	26.67	3.37
400	11.78	35.39	26.95	3.11

STATION 31

DATE July 30, 1953 LAT. 31°02'N. LONG. 80°00'W. TIME 04
DEPTH 53 WIND 5 , 16 BAR. - AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. 16 , amt. 1
SWELL: dir. 09 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.70	35.95	22.90	4.74
10	28.62	35.90	22.89	4.74
20	28.47	35.99	23.01	4.74
40	25.06	36.18	24.23	4.84

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.70	35.95	22.90	4.74
10	28.62	35.90	22.89	4.74
20	28.47	35.99	23.01	4.74
30	27.28	36.08	23.46	4.77

STATION 31

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.3	0.5	1.8	1.0
10	0.6	<0.1	-	-	0.7
20	0.8	0.0	<0.5	2.0	0.4
40	1.6	0.3	1.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.3	0.5	1.8	1.0
10	0.6	<0.1	<0.5	1.9	0.7
20	0.8	0.0	<0.5	2.0	0.4
30	1.2	0.2	1.0	-	0.7

STATION 32

DATE July 30, 1953 LAT. 31°00'N. LONG. 80°23'W. TIME 07
DEPTH 37 WIND 3 , 15 BAR. 21 AIR TEMP: dry 27.2°C, wet 25.6°C
HUMIDITY 88% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 15 , amt. 1
SWELL: dir. 10 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.79	35.61	22.94	4.76
10	27.73	35.61	22.96	4.73
20	26.73	35.80	23.43	4.62
30	26.67	35.79	23.44	4.56

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.79	35.61	22.94	4.76
10	27.73	35.61	22.96	4.73
20	26.73	35.80	23.43	4.62
30	26.67	35.79	23.44	4.56

STATION 33

DATE July 30, 1953 LAT. 31°00'N. LONG. 80°46'W. TIME 10
DEPTH 22 WIND 3 , 15 BAR. 20 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 2 , amt. 3 SEA: dir. 15 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.73	35.91	23.19	4.56
10	27.63	35.91	23.22	4.49

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.73	35.91	23.19	4.56
10	27.63	35.91	23.22	4.49

STATION 33

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.1	0.0	-	0.7
10	1.4	0.2	0.0	-	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.1	0.0	-	0.7
10	1.4	0.2	0.0	-	1.6

STATION 34

DATE July 30, 1953 LAT. 31°00'N. LONG. 81°09'W. TIME 12
DEPTH 13 WIND 2 ,21 BAR. 21 AIR TEMP: dry 27.2 °C, wet 24.4 °C
HUMIDITY 79% WEATHER 03 CLOUDS: type 8 ,amt. 3 SEA: dir. - ,amt. -
SWELL: dir. 11 ,amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.22	35.44	22.67	4.52
10	28.16	35.43	22.69	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.22	35.44	22.67	4.52
10	28.16	35.43	22.69	4.52

STATION 35

DATE Aug. 4, 1953 LAT. 31°20'N. LONG. 80°52'W. TIME 24
DEPTH 16 WIND 4 , 27 BAR. 15 AIR TEMP: dry 26.1°C, wet 25.0°C
HUMIDITY 91% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 27 , amt. 1
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	-	35.26	-	4.66
10	28.70	35.63	22.66	4.63

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	-	35.26	-	4.66
10	28.70	35.63	22.66	4.63

STATION 35

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.0	0.1	0.5	3.1	0.6
10	1.2	0.2	1.0	-	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.0	0.1	0.5	3.1	0.6
10	1.2	0.2	1.0	-	1.3

STATION 36

DATE Aug. 5, 1953 LAT. 31°40'N. LONG. 80°37'W. TIME 04
DEPTH 18 WIND 5 , 27 BAR. 15 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 81% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 27 , amt. 1
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.22	34.87	21.91	4.96
10	28.97	35.16	22.22	5.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.22	34.87	21.91	4.96
10	28.97	35.16	22.22	5.00

STATION 37

DATE Aug. 5, 1953 LAT. 31°38'N. LONG. 80°14'W. TIME 06
DEPTH 29 WIND 6 , 25 BAR. 15 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 00 CLOUDS: type -, amt. - SEA: dir. 28, amt. 1
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.01	35.68	22.92	4.60
10	27.97	35.64	22.91	4.45
20	26.52	35.77	23.47	4.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.01	35.68	22.92	4.60
10	27.97	35.64	22.91	4.45
20	26.52	35.77	23.47	4.13

STATION 37

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	<0.1	0.0	0.7	0.4
10	0.7	0.0	3.5	-	0.9
20	0.9	0.2	4.5	3.5	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	<0.1	0.0	0.7	0.4
10	0.7	0.0	3.5	2.1	0.9
20	0.9	0.2	4.5	3.5	0.4

STATION 38

DATE Aug. 5, 1953 LAT. 31°35'N. LONG. 79°51'W. TIME 09
DEPTH 46 WIND 4 , 26 BAR. 13 AIR TEMP: dry 27.2°C, wet 25.6°C
HUMIDITY 87% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 26 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.66	35.86	22.84	4.62
10	28.58	35.86	22.87	4.53
20	28.43	36.10	23.10	4.45
30	25.05	36.20	24.25	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.66	35.86	22.84	4.62
10	28.58	35.86	22.87	4.53
20	28.43	36.10	23.10	4.45
30	25.05	36.20	24.25	4.71

STATION 39

DATE Aug. 5, 1953 LAT. 31°32'N. LONG. 79°28'W. TIME 12
DEPTH 549 WIND 4 , 24 BAR. 13 AIR TEMP: dry 28.9°C, wet 27.2°C
HUMIDITY 88% WEATHER 03 CLOUDS: type 8 , amt. 4 SEA: dir. 24 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.30	36.04	23.10	4.68
8	28.24	36.06	23.13	4.73
16	28.03	36.06	23.20	4.70
40	24.03	36.06	24.45	5.18
61	19.11	36.00	25.77	4.18
81	15.79	35.82	26.44	3.64
105	14.21	35.68	26.69	3.42
143	11.91	35.44	26.97	3.17
222	8.95	35.03	27.17	3.05
301	7.95	34.94	27.25	3.22

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.30	36.04	23.10	4.68
10	28.24	36.06	23.13	4.71
20	27.48	36.06	23.38	4.90
30	25.91	36.06	23.88	5.08
50	21.50	36.05	25.17	4.65
75	16.59	35.87	26.30	3.77
100	14.53	35.71	26.64	3.46
150	11.57	35.39	26.99	3.15
200	9.58	35.11	27.13	3.05
250	8.37	34.99	27.23	3.08
300	7.95	34.94	27.25	3.22

STATION 39

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.2	3.5	-	0.3
8	1.1	0.4	1.0	-	0.7
16	1.2	0.0	0.5	-	-
40	1.0	0.2	1.5	-	0.4
61	1.3	1.1	5.0	-	0.3
81	1.3	1.1	4.0	1.4	1.6
105	-	1.4	12.0	-	0.9
143	-	2.0	14.5	-	0.7
222	-	2.6	16.5	-	2.0
301	2.3	2.4	30.0	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.2	3.5	-	0.3
10	1.1	0.3	1.0	-	0.7
20	1.2	<0.1	0.5	-	0.6
30	1.1	0.1	1.0	-	0.5
50	1.2	0.6	3.0	-	0.4
75	1.3	1.1	4.5	1.4	1.2
100	-	1.3	10.5	-	1.0
150	-	2.1	14.5	-	0.8
200	-	2.4	16.0	-	1.6
250	-	2.5	21.5	-	-
300	2.3	2.4	30.0	-	-

STATION 40

DATE Aug. 5, 1953 LAT. 31°30'N. LONG. 78°42'W. TIME 17
DEPTH 567 WIND 3 , 24 BAR. 14 AIR TEMP: dry 31.1°C, wet 27.8°C
HUMIDITY 77% WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. 25 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.28	35.95	22.70	4.71
10	29.11	35.95	22.76	4.77
20	29.08	35.93	22.76	4.79
50	27.63	36.02	23.30	4.86
100	25.27	36.26	24.23	4.37
150	21.27	36.60	25.66	4.87
200	19.93	36.58	26.00	4.71
300	18.05	36.44	26.38	4.59
400	16.19	36.14	26.60	4.01
500	14.52	35.86	26.76	3.57

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.28	35.95	22.70	4.71
10	29.11	35.95	22.76	4.77
20	29.08	35.93	22.76	4.79
30	28.59	35.96	22.94	4.84
50	27.63	36.02	23.30	4.86
75	26.66	36.13	23.70	4.49
100	25.27	36.26	24.23	4.37
150	21.27	36.60	25.66	4.87
200	19.93	36.58	26.00	4.71
250	18.99	36.53	26.21	4.66
300	18.05	36.44	26.38	4.59
400	16.19	36.14	26.60	4.01
500	14.52	35.86	26.76	3.57

STATION 40

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.0	0.5	1.8	-
10	-	0.1	0.0	-	0.9
20	1.5	0.1	3.0	-	0.1
50	1.0	0.4	3.5	-	1.1
100	1.5	0.1	1.0	-	1.0
150	0.9	0.2	1.5	-	1.2
200	0.4	0.2	1.5	-	1.1
300	0.7	-	3.0	-	1.4
400	1.5	1.2	4.0	-	0.6
500	1.3	1.1	7.0	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.0	0.5	1.8	-
10	1.1	0.1	0.0	-	0.9
20	1.5	0.1	3.0	-	0.1
30	1.3	0.2	3.0	-	0.4
50	1.0	0.4	3.5	-	1.1
75	1.3	0.3	2.5	-	1.1
100	1.5	0.1	1.0	-	1.0
150	0.9	0.2	1.5	-	1.2
200	0.4	0.2	1.5	-	1.1
250	0.6	0.5	2.5	-	1.3
300	0.7	0.7	3.0	-	1.4
400	1.5	1.2	4.0	-	0.6
500	1.3	1.1	7.0	-	0.4

STATION 41

DATE Aug. 5, 1953 LAT. 31°41'N. LONG. 79°01'W. TIME 21
DEPTH 612 WIND 3 , 24 BAR. 12 AIR TEMP: dry 28.9°C, wet 25.6°C
HUMIDITY 77% WEATHER 01 CLOUDS: type 3 , amt. 1 SEA: dir. 24 , amt. 1
SWELL: dir. 03 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.65	35.93	22.56	4.55
8	28.92*	35.90	22.79	4.72
16	29.15	35.90	22.71	4.62
39	27.92	36.00	23.19	4.79
58	27.27	36.00	23.41	4.79
76	25.46	36.29	24.19	4.52
112	22.45	36.58	25.31	3.92
145	18.73	36.27	26.08	3.58
209	14.89	35.88	26.69	3.22
269	11.88	35.41	26.95	3.14
327	-	35.05	-	3.05

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.65	35.93	22.56	4.55
10	29.31	35.90	22.66	4.69
20	28.90	35.93	22.82	4.66
30	28.34	35.97	23.03	4.75
50	27.70	36.00	23.27	4.79
75	25.56	36.28	24.16	4.54
100	23.57	36.56	24.97	4.09
150	18.41	36.24	26.14	3.54
200	15.39	35.94	26.63	3.25
250	12.77	35.55	26.88	3.17
300	-	35.21	-	3.09

STATION 42

DATE Aug. 6, 1953 LAT. 31°57'N. LONG. 79°16'W. TIME 00
DEPTH 132 WIND 7 , 20 BAR. 12 AIR TEMP: dry 28.3°C, wet 26.7°C
HUMIDITY 88% WEATHER 03 CLOUDS: type 8 , amt. 3 SEA: dir. 20 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.95	36.02	22.87	4.69
10	28.38	36.02	23.06	4.70
20	24.77	36.17	24.32	5.40
50	19.22	36.20	25.90	3.92
75	16.04	35.99	26.52	3.34
100	14.00	35.75	26.78	3.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.95	36.02	22.87	4.69
10	28.38	36.02	23.06	4.70
20	24.77	36.17	24.32	5.40
30	22.71	36.20	24.95	4.81
50	19.22	36.20	25.90	3.92
75	16.04	35.99	26.52	3.34
100	14.00	35.75	26.78	3.28

STATION 42

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.3	0.5	4.1	1.7
10	-	0.1	0.5	-	1.2
20	1.6	0.0	1.0	-	1.1
50	1.5	0.7	4.5	-	2.3
75	1.3	1.2	9.0	-	0.9
100	1.9	1.5	2.5	0.5	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.3	0.5	4.1	1.7
10	1.1	0.1	0.5	-	1.2
20	1.6	0.0	1.0	-	1.1
30	1.6	0.2	2.0	-	1.5
50	1.5	0.7	4.5	-	2.3
75	1.3	1.2	9.0	-	0.9
100	1.9	1.5	2.5	0.5	0.0

STATION 43

DATE Aug. 6, 1953 LAT. 32°12'N. LONG. 79°33'W. TIME 04
DEPTH 33 WIND 8 , 20 BAR. 13 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 00 CLOUDS: type -, amt. - SEA: dir. 22, amt. 4
SWELL: dir. -, amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.32	35.10	22.39	4.79
10	27.96	35.35	22.69	4.71
20	26.39	35.84	23.57	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.32	35.10	22.39	4.79
10	27.96	35.35	22.69	4.71
20	26.39	35.84	23.57	4.71

STATION 44

DATE Aug. 6, 1953 LAT. 32°26'N. LONG. 79°50'W. TIME 07
DEPTH 16 WIND 7 , 24 BAR. 12 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 24 , amt. 3
SWELL: dir. 20 , amt. 2 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.26	34.97	22.31	4.68
10	28.32	34.96	22.28	4.77

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.26	34.97	22.31	4.68
10	28.32	34.96	22.28	4.77

STATION 44

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.3	-	1.6	0.3
10	1.4	0.3	0.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.3	-	1.6	0.3
10	1.4	0.3	0.5	-	0.9

STATION 45

DATE Aug. 6, 1953 LAT. 32°40'N. LONG. 79°32'W. TIME 09
DEPTH 15 WIND 7 , 18 BAR. 12 AIR TEMP: dry 28.9°C, wet 27.8°C
HUMIDITY 92% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 18 , amt. 3
SWELL: dir. - , amt. - VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.18	35.01	22.36	4.61
10	27.85	35.16	22.59	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.18	35.01	22.36	4.61
10	27.85	35.16	22.59	4.52

STATION 46

DATE Aug. 6, 1953 LAT. 32°54'N. LONG. 79°16'W. TIME 11
DEPTH 13 WIND 6 , 19 BAR. 12 AIR TEMP: dry 27.8°C, wet 27.2°C
HUMIDITY 96% WEATHER 00 CLOUDS: type - , amt. 7 SEA: dir. 19 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.19	35.05	22.39	4.56

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.19	35.05	22.39	4.56

STATION 46

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.2	-	0.0	-	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.2	-	0.0	-	1.3

STATION 47

DATE Aug. 6, 1953 LAT. 32°40'N. LONG. 79°00'W. TIME 14
DEPTH 27 WIND 7 , 19 BAR. 13 AIR TEMP: dry 28.9°C, wet 27.2°C
HUMIDITY 88% WEATHER 03 CLOUDS: type 7 , amt. 8 SEA: dir. 19 , amt. 3
SWELL: dir. 18 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.11	35.73	22.93	4.71
10	28.03	35.39	22.70	4.72
20	25.54	35.37	23.48	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.11	35.73	22.93	4.71
10	28.03	35.39	22.70	4.72
20	25.54	35.37	23.48	4.52

STATION 48

DATE Aug. 6, 1953 LAT. 32°24'N. LONG. 78°44'W. TIME 17
DEPTH 210 WIND 9. , 19 BAR. 15 AIR TEMP: dry 30.0°C, wet 27.8°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 6 , amt. 7 SEA: dir. 19 , amt. 4
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.62	36.04	22.99	4.64
10	28.61	36.02	22.98	4.76
20	27.81	36.04	23.26	4.94
50	19.81	36.17	25.72	3.96
100	14.59	35.86	26.74	3.25
150	11.51	35.39	27.00	3.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.62	36.04	22.99	4.64
10	28.61	36.02	22.98	4.76
20	27.81	36.04	23.26	4.94
30	24.74	36.11	24.28	4.57
50	19.81	36.17	25.72	3.96
75	16.93	36.04	26.35	3.53
100	14.59	35.86	26.74	3.25
150	11.51	35.39	27.00	3.13

STATION 48

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.0	1.0	-	1.1
10	1.4	0.1	2.0	-	-
20	1.0	0.1	<0.5	-	0.7
50	1.4	0.8	2.5	1.2	0.5
100	3.8	1.3	9.5	0.4	1.3
150	4.3	1.8	16.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.0	1.0	-	1.1
10	1.4	0.1	2.0	-	0.9
20	1.0	0.1	<0.5	-	0.7
30	1.1	0.3	1.5	-	0.6
50	1.4	0.8	2.5	1.2	0.5
75	2.6	1.0	6.0	0.8	0.9
100	3.8	1.3	9.5	0.4	1.3
150	4.3	1.8	16.5	-	0.9

STATION 49

DATE Aug. 9, 1953 LAT. 32°12'N. LONG. 78°26'W. TIME 20
DEPTH 347 WIND 7 , 19 BAR. 14 AIR TEMP: dry 29.4°C, wet 27.2°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 8 , amt. 4 SEA: dir. 19 , amt. 4
SWELL: dir. 19 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.69	36.06	22.98	4.65
8	28.71	36.04	22.96	4.58
15	28.66	36.04	22.98	4.64
38	28.41	36.04	23.06	4.74
73	25.04	36.17	24.23	5.06
107	20.72	36.17	25.48	4.24
138	15.72	35.93	26.54	3.34
168	12.76	35.61	26.93	3.17
197	12.46	35.52	26.92	3.10

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.69	36.06	22.98	4.65
10	28.70	36.04	22.97	4.60
20	28.64	36.04	22.99	4.65
30	28.59	36.04	23.00	4.70
50	27.38	36.10	23.44	4.98
75	24.82	36.17	24.30	5.02
100	21.71	36.17	25.21	4.42
150	14.21	35.77	26.75	3.26

STATION 50

DATE Aug. 7, 1953 LAT. 31°57'N. LONG. 78°09'W. TIME 00
DEPTH 658 WIND 7 , 20 BAR. 15 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 9 , amt. 3 SEA: dir. 20 , amt. 3
SWELL: dir. 19 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.30	35.99	22.73	4.56
10	29.32	35.99	22.72	4.73
19	29.36	35.99	22.71	4.57
47	28.35	35.94	23.01	4.73
94	25.74	36.15	24.00	4.47
139	21.75	36.62	25.54	4.80
184	21.38	36.65	25.66	3.68
274	17.75	36.33	26.37	3.59
361	16.16	36.11	26.58	4.08
448	14.67	35.82	26.69	4.24
535	11.08	35.32	27.03	3.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.30	35.99	22.73	4.56
10	29.32	35.99	22.72	4.73
20	29.33	35.99	22.72	4.58
30	29.01	35.95	22.79	4.66
50	28.23	35.94	23.05	4.69
75	26.99	36.03	23.52	4.50
100	25.00	36.24	24.30	4.60
150	21.65	36.64	25.58	4.46
200	20.59	36.59	25.83	3.62
250	18.52	36.41	26.24	3.60
300	17.26	36.27	26.44	3.77
400	15.75	36.01	26.60	4.17
500	12.78	35.55	26.88	3.69

STATION 50

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.6	0.0	0.5	-	1.1
10	0.7	0.0	1.0	2.0	0.9
19	2.7	0.1	1.0	-	1.0
47	1.1	0.1	1.0	1.3	0.9
94	1.2	0.0	2.0	0.0	1.5
139	2.8	0.3	1.0	0.0	0.3
184	1.4	0.4	6.0	-	1.3
274	-	1.2	6.5	2.5	0.8
361	2.5	0.8	7.0	-	0.4
448	1.7	1.6	12.5	-	6.6
535	2.6	1.9	19.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.6	0.0	0.5	-	1.1
10	0.7	0.0	1.0	2.0	0.9
20	2.7	0.1	1.0	1.8	1.0
30	2.1	0.1	1.0	1.6	1.0
50	1.1	0.1	1.0	1.2	1.0
75	1.2	<0.1	1.5	0.6	1.3
100	1.4	<0.1	2.0	0.0	1.3
150	2.4	0.3	2.5	0.2	0.5
200	1.5	0.5	6.0	1.1	1.2
250	1.8	1.0	6.5	2.0	0.9
300	2.1	1.1	6.5	-	0.7
400	2.1	1.2	9.5	-	3.2
500	2.2	1.8	16.5	-	3.0

STATION 51

DATE Aug. 7, 1953 LAT. 32°19'N. LONG. 77°34'W. TIME 05
DEPTH 658 WIND 9 , 21 BAR. 17 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 13 CLOUDS: type -, amt. - SEA: dir. 21, amt. 4
SWELL: dir. 20, amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.14	36.01	22.80	4.58
8	29.16	36.00	22.78	4.53
15	29.22	35.99	22.75	4.53
38	28.38	35.95	23.00	4.58
74	26.64	36.06	23.65	4.62
110	25.31	36.29	24.24	4.31
145	23.95	36.62	24.90	4.02
211	19.86*	36.56*	26.01	3.44
274	20.07	36.65	26.02	3.46
336	18.03	36.44	26.38	3.49
397	14.38	35.91	26.83	3.23

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.14	36.01	22.80	4.58
10	29.19	36.00	22.77	4.53
20	29.06	35.97	22.79	4.54
30	28.70	35.95	22.90	4.56
50	27.75	35.97	23.23	4.60
75	26.60	36.06	23.66	4.61
100	25.69	36.21	24.06	4.39
150	23.75	36.63	24.97	3.95
200	22.24	36.64	25.41	3.49
250	20.81	36.65	25.82	3.45
300	19.42	36.60	26.15	3.48

STATION 52

DATE Aug 7, 1953 LAT. 32°35'N. LONG. 77°46'W. TIME 09
DEPTH 439 WIND 8 , 19 BAR. 15 AIR TEMP: dry 25.6°C, wet 26.1°C
HUMIDITY 99% WEATHER 81 CLOUDS: type - , amt. - SEA: dir. 21 , amt. 4
SWELL: dir. 19 , amt. 3 VIS. 3 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.19	36.04	22.80	4.54
7	29.20	36.04	22.80	4.48
14	29.28	36.05	22.78	4.56
35	28.98	36.20	22.99	4.64
71	26.29	36.18	23.85	4.69

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.19	36.04	22.80	4.54
10	29.25	36.04	22.78	4.52
20	29.23	36.11	22.84	4.59
30	29.08	36.18	22.94	4.62
50	27.65	36.19	23.42	4.67

STATION 52

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.1	0.0	0.9	0.0
7	1.7	0.0	0.5	2.3	1.4
14	0.7	0.1	1.0	2.4	1.4
35	1.8	0.3	1.0	-	-
71	1.6	0.6	0.0	0.0	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.1	0.0	0.9	0.0
10	1.3	<0.1	0.5	2.4	1.4
20	1.0	0.2	1.0	2.2	-
30	1.5	0.3	1.0	1.8	-
50	1.7	0.4	0.5	0.9	-
75	1.6	0.6	0.0	0.0	-

STATION 53

DATE Aug. 7. 1953 LAT. 32°54'N. LONG. 77°58'W. TIME 14
DEPTH 165 WIND 5 , 15 BAR. 18 AIR TEMP: dry 25.6°C, wet 23.9°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 6 , amt. 6 SEA: dir. 17 , amt. 3
SWELL: dir. 17 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.11	35.43	22.70	4.71
10	28.16	35.44	22.69	4.73
20	28.52	35.91	22.93	4.74
48	23.12	36.29	24.90	4.97
96	16.36	36.09	26.52	3.45
144	14.06	35.84	26.84	3.55

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.11	35.43	22.70	4.71
10	28.16	35.44	22.69	4.73
20	28.52	35.91	22.93	4.74
30	26.47	36.09	23.73	4.92
50	22.75	36.28	25.00	4.87
75	18.77	36.18	26.00	3.92
100	16.00	36.07	26.59	3.46

STATION 54

DATE Aug. 7, 1953 LAT. 33°03'N. LONG. 78°21'W. TIME 18
DEPTH 29 WIND 8 , 18 BAR. 18 AIR TEMP: dry 27.8°C, wet 24.4°C
HUMIDITY 76% WEATHER 03 CLOUDS: type 6 , amt. 7 SEA: dir. 18 , amt. 3
SWELL: dir. 17 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.16	35.55	22.78	4.82
10	27.91	35.59	22.89	4.88
20	24.79	36.15	24.29	4.73

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.16	35.55	22.78	4.82
10	27.91	35.59	22.89	4.88
20	24.79	36.15	24.29	4.73

STATION 54

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.8	0.2	1.0	4.3	0.7
10	1.7	0.1	3.0	-	1.5
20	-	0.2	0.0	3.9	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.8	0.2	1.0	4.3	0.7
10	1.7	0.1	3.0	4.1	1.5
20	-	0.2	0.0	3.9	-

STATION 55

DATE Aug. 7, 1953 LAT. 33°17'N. LONG. 78°37'W. TIME 21
DEPTH 18 WIND 6 , 21 BAR. 16 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 3 , amt. 3 SEA: dir. 21 , amt. 3
SWELL: dir. 17 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.47	35.33	22.51	4.77
10	28.22	35.48	22.70	4.77

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.47	35.33	22.51	4.77
10	28.22	35.48	22.70	4.77

STATION 56

DATE Aug. 7, 1953 LAT. 33°31'N. LONG. 78°56'W. TIME 23
DEPTH 11 WIND 6 , 21 BAR. 16 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 9 , amt. 8 SEA: dir. 21 , amt. 3
SWELL: dir. 19 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.80	34.74	21.96	4.88

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.80	34.74	21.96	4.88

STATION 56

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.8	0.1	2.0	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.8	0.1	2.0	-	0.7

STATION 57

DATE Aug. 8, 1953 LAT. 33°34'N. LONG. 78°25'W. TIME 02
DEPTH 18 WIND 9 , 24 BAR. 18 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 13 CLOUDS: type 6 , amt. - SEA: dir. 22 , amt. 3
SWELL: dir. 20 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.23	34.43	21.91	4.74
10	28.57	35.35	22.49	4.48

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.23	34.43	21.91	4.74
10	28.57	35.35	22.49	4.48

STATION 58

DATE Aug. 8, 1953 LAT. 33°36'N. LONG. 77°55'W. TIME 05
DEPTH 16 WIND 9 , 24 BAR. 18 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 13 CLOUDS: type - , amt. - SEA: dir. 24 , amt. 3
SWELL: dir. 21 , amt. 3 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.31	35.62	22.78	4.76
10	28.28	35.61	22.78	4.57

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.31	35.62	22.78	4.76
10	28.28	35.61	22.78	4.57

STATION 58

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.2	0.5	0.0	-
10	1.2	0.7	1.0	0.2	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.2	0.5	0.0	-
10	1.2	0.7	1.0	0.2	0.5

STATION 59

DATE Aug. 10, 1953 LAT. 33°22'N. LONG. 77°37'W. TIME 14
DEPTH 24 WIND 10 , 19 BAR. 18 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER - CLOUDS: type - , amt. - SEA: dir. 19 , amt. 3
SWELL: dir. 18 , amt. 3 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.56	35.61	23.02	4.73
10	27.53	35.61	23.03	4.30

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.56	35.61	23.02	4.73
10	27.53	35.61	23.03	4.30

STATION 60

DATE Aug. 10, 1953 LAT. 33°07'N. LONG. 77°20'W. TIME 20
DEPTH 272 WIND 7 , 19 BAR. 19 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 4 , amt. 7 SEA: dir. 19 , amt. 3
SWELL: dir. 18 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.91	35.94	23.15	3.35
10	27.85	35.95	23.18	3.27
20	27.79	35.95	23.20	3.55
49	20.20	36.18	25.63	3.27
97	16.52	36.17	26.54	3.61
145	13.97	35.73	26.77	3.51
192	10.86	35.37	27.11	3.28

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.91	35.94	23.15	3.35
10	27.85	35.95	23.18	3.27
20	27.79	35.95	23.20	3.55
30	24.72	36.05	24.24	3.41
50	20.11	36.18	25.65	3.28
75	18.07	36.18	26.18	3.51
100	16.38	36.14	26.55	3.61
150	13.67	35.69	26.81	3.49

STATION 60

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.1	0.5	-	1.3
10	2.2	0.8	1.0	-	0.3
20	1.3	0.4	<0.5	1.3	0.7
49	1.5	0.8	5.5	-	0.0
97	2.5	1.3	11.0	-	4.4
145	3.2	1.4	12.0	1.0	2.3
192	3.4	2.0	9.0	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.1	0.5	-	1.3
10	2.2	0.8	1.0	-	0.3
20	1.3	0.4	<0.5	1.3	0.7
30	1.4	0.5	2.0	-	0.5
50	1.5	0.8	5.5	-	0.0
75	2.0	1.1	8.5	-	2.4
100	2.6	1.3	11.0	-	4.2
150	3.2	1.5	11.5	1.0	2.1
200	3.4	2.0	9.0	-	0.0

STATION 61

DATE Aug. 10, 1953 LAT. 32°54'N. LONG. 77°04'W. TIME 23
DEPTH 448 WIND 10, 20 BAR. 18 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 03 CLOUDS: type 5, amt. 6 SEA: dir. 20, amt. 3
SWELL: dir. 18, amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.91	35.68	22.96	4.73
6	27.87	35.68	22.97	4.64
12	27.94	35.70	22.96	4.63
32	27.90	36.13	23.30	4.88
62	21.40	36.22	25.33	4.41
92	16.94	36.16	26.44	3.33
119	15.09	35.88	26.65	3.31
172	12.12	35.44	26.93	3.12
223	11.30	35.39	27.04	3.10
273	9.56	35.17	27.18	3.19

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.91	35.68	22.96	4.73
10	27.93	35.69	22.96	4.63
20	27.92	35.87	23.10	4.78
30	27.91	36.09	23.26	4.88
50	24.43	36.21	24.45	4.67
75	19.13	36.20	25.92	3.81
100	16.37	36.07	26.50	3.33
150	13.09	35.57	26.83	3.18
200	11.79	35.43	26.98	3.10
250	10.48	35.29	27.11	3.14

STATION 62

DATE Aug. 11, 1953 LAT. 32°39'N. LONG. 76°46'W. TIME 03
DEPTH 713 WIND 6 , 20 BAR. 20 AIR TEMP: dry 27.8°C, wet 24.4°C
HUMIDITY 76% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 20 , amt. 2
SWELL: dir. 18 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.81	36.02	22.91	4.48
8	28.78	36.00	22.91	4.61
15	28.83	36.08	22.95	4.58
36	28.17	36.06	23.16	4.74
70	27.41	36.09	23.43	3.24
133	23.88	36.65	24.95	4.33
190	19.87	36.60	26.03	3.42
244	17.55	36.31	26.40	3.45
296	13.94	35.79	26.83	3.19
347	10.80	35.35	27.10	3.01

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.81	36.02	22.91	4.48
10	28.81	36.03	22.92	4.60
20	28.66	36.07	23.00	4.63
30	28.34	36.06	23.10	4.71
50	27.95	36.06	23.23	3.95
75	27.25	36.11	23.49	3.41
100	26.11	36.29	23.99	4.03
150	22.52	36.64	25.33	3.96
200	19.55	36.57	26.10	3.43
250	17.11	36.25	26.46	3.42
300	13.68	35.75	26.85	3.17

STATION 62

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.0	1.5	-	-
8	1.9	0.1	1.5	-	1.2
15	0.9	0.3	1.0	-	0.7
36	0.7	0.7	1.0	0.3	-
70	1.1	<0.1	1.0	0.5	1.0
133	1.3	0.2	3.0	1.4	0.4
190	2.0	0.8	3.5	-	0.0
244	0.9	-	8.5	-	1.9
296	1.3	-	5.5	16.3	0.3
347	1.9	2.0	14.5	-	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.0	1.5	-	-
10	1.6	0.2	1.5	-	1.1
20	0.9	0.4	1.0	-	0.7
30	0.8	0.6	1.0	-	0.8
50	0.9	0.5	1.0	0.4	0.9
75	1.1	<0.1	1.0	0.6	0.9
100	1.2	0.2	2.0	1.0	0.7
150	1.5	0.4	3.0	-	0.3
200	1.8	0.9	4.5	-	0.3
250	1.0	1.3	8.0	-	1.7
300	1.4	1.7	6.0	16.3	0.3

STATION 63

DATE Aug. 11, 1953 LAT. 33°24'N. LONG. 76°25'W. TIME 08
DEPTH 658 WIND 6 , 17 BAR. 20 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 19 , amt. 2
SWELL: dir. 17 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.42	36.04	23.06	4.86
7	28.40	36.05	23.07	4.84
14	28.44	36.04	23.05	4.73
36	27.20	36.08	23.49	4.97
70	25.71	36.31	24.13	4.56
136	20.30	36.58	25.90	3.68
199	16.38	36.12	26.54	3.44
239	14.75	35.89	26.73	3.38
290	-	35.69	-	3.38
340	11.57	35.50	27.08	3.55

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.42	36.04	23.06	4.86
10	28.44	36.04	23.05	4.78
20	28.08	36.04	23.17	4.83
30	27.52	36.06	23.37	4.94
50	26.69	36.18	23.73	4.80
75	25.25	36.36	24.31	4.47
100	23.09	36.53	25.09	4.08
150	19.29	36.47	26.09	3.61
200	16.34	36.11	26.54	3.44
250	14.34	35.85	26.79	3.38
300	12.67	35.65	26.98	3.40

STATION 64

DATE Aug. 11, 1953 LAT. 33°29'N. LONG. 76°40'W. TIME 12
DEPTH 384 WIND 4 , 24 BAR. 21 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 0 , amt. 3 SEA: dir. 24 , amt. 1
SWELL: dir. 15 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.62	35.84	23.17	4.73
10	27.95	36.08	23.24	4.68
19	28.07	36.08	23.20	4.73
48	23.83	36.37	24.75	4.49
96	18.72	36.26	26.07	3.68
154	15.01	35.99	26.75	3.38
191	13.52	35.75	26.88	3.30
286	11.36	35.44	27.07	3.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.62	35.84	23.17	4.73
10	27.95	36.08	23.24	4.68
20	27.91	36.09	23.26	4.72
30	26.36	36.22	23.86	4.66
50	23.58	36.37	24.82	4.45
75	20.73	36.32	25.59	3.97
100	18.41	36.25	26.14	3.65
150	15.21	36.01	26.72	3.39
200	13.21	35.70	26.91	3.28
250	11.90	35.51	27.02	3.21

STATION 64

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.2	1.0	-	0.5
10	0.6	0.1	<0.5	0.9	-
19	0.9	<0.1	0.5	-	0.4
48	0.7	0.5	0.5	-	0.9
96	1.3	0.9	6.5	0.5	0.4
154	9.2*	1.1	3.5	0.0	1.1
191	2.5	1.5	10.5	-	0.5
286	4.2	2.2	8.0	0.0	0.5

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.2	1.0	-	0.5
10	0.6	0.1	<0.5	0.9	0.5
20	0.9	<0.1	0.5	0.8	0.4
30	0.8	0.2	0.5	0.8	0.6
50	0.7	0.5	0.5	0.7	0.9
75	1.0	0.7	3.5	0.6	0.6
100	1.3	0.9	6.5	0.5	0.4
150	1.9	1.1	3.5	0.0	1.1
200	2.5	1.5	10.5	0.0	0.5
250	3.6	1.9	9.0	0.0	0.5

STATION 65

DATE Aug. 11, 1953 LAT. 33°44'N. LONG. 77°00'W. TIME 16
DEPTH 38 WIND 3 , 22 BAR. 22 AIR TEMP: dry 26.1°C, wet 22.8°C
HUMIDITY 75% WEATHER 03 CLOUDS: type 9 , amt. 8 SEA: dir. 22 , amt. 1
SWELL: dir. 19 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.71	36.08	23.32	4.84
10	27.56	36.09	23.38	4.90
20	27.55	36.10	23.39	4.73
30	25.76	36.32	24.12	4.83

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.71	36.08	23.32	4.84
10	27.56	36.09	23.38	4.90
20	27.55	36.10	23.39	4.73
30	25.76	36.32	24.12	4.83

STATION 66

DATE Aug. 11, 1953 LAT. 33°57'N. LONG. 77°13'W. TIME 19
DEPTH 29 WIND 6 , 27 BAR. 22 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 02 CLOUDS: type 7 , amt. 8 SEA: dir. 27 , amt. 1
SWELL: dir. 17 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.07	35.70	23.24	4.71
10	27.18	35.90	23.36	4.52
20	23.99	36.28	24.63	4.78

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.07	35.70	23.24	4.71
10	27.18	35.90	23.36	4.52
20	23.99	36.28	24.63	4.78

STATION 66

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.6	0.0	<0.5	-	-
10	1.1	0.0	1.5	-	0.9
20	1.3	0.4	4.0	10.5	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.6	0.0	<0.5	-	-
10	1.1	0.0	1.5	-	0.9
20	1.3	0.4	4.0	10.5	0.4

STATION 67

DATE Aug. 11, 1953 LAT. 34°11'N. LONG. 77°30'W. TIME 21
DEPTH 18 WIND 1 , - BAR. 21 AIR TEMP: dry 27.2°C, wet 23.9°C
HUMIDITY 76% WEATHER 02 CLOUDS: type 2 , amt. 7 SEA: dir. - , amt. -
SWELL: dir. 17 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.79	35.62	22.95	4.90
10	27.73	35.68	23.02	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.79	35.62	22.95	4.90
10	27.73	35.68	23.02	4.86

STATION 68

DATE Aug. 12, 1953 LAT. 34°22'N. LONG. 77°09'W. TIME 00
DEPTH 20 WIND 4 , 14 BAR. 21 AIR TEMP: dry 26.1°C, wet 25.0°C
HUMIDITY 91% WEATHER - CLOUDS: type - , amt. - SEA: dir. - , amt. -
SWELL: dir. 14 , amt. 2 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.45	35.69	23.11	4.76
10	27.48	35.70	23.11	4.67

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.45	35.69	23.11	4.76
10	27.48	35.70	23.11	4.67

STATION 69

DATE Aug. 12, 1953 LAT. 34°32'N. LONG. 76°49'W. TIME 02
DEPTH 20 WIND 5 , 15 BAR. 22 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER - CLOUDS: type -, amt. - SEA: dir. -, amt. -
SWELL: dir. 14, amt. 2 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.53	36.06	23.37	4.81
10	27.57	36.04	23.34	4.64

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.53	36.06	23.37	4.81
10	27.57	36.04	23.34	4.64

STATION 70

DATE Aug. 12, 1953 LAT. 34°18'N. LONG. 76°32'W. TIME 05
DEPTH 29 WIND 6 , 14 BAR. 21 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 79% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 14 , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.47	35.71	23.12	4.64
10	27.48	35.71	23.12	4.60
20	27.34	35.84	23.26	4.66

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.47	35.71	23.12	4.64
10	27.48	35.71	23.12	4.60
20	27.34	35.84	23.26	4.66

STATION 70

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.2	-	-	0.4
10	0.5	0.3	1.0	-	1.8
20	1.8	0.4	0.5	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.2	-	-	0.4
10	0.5	0.3	1.0	-	1.8
20	1.8	0.4	0.5	-	0.0

STATION 71

DATE Aug. 12, 1953 LAT. 34°04'N. LONG. 76°15'W. TIME 08
DEPTH 113 WIND 6 , 08 BAR. 20 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 79% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 08 , amt. 2
SWELL: dir. - , amt. - VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.15	35.95	23.08	4.67
10	28.19	35.95	23.07	4.69
20	28.15	35.95	23.08	4.67
50	22.39	36.33	25.14	4.39
75	19.42	36.31	25.93	3.78

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.15	35.95	23.08	4.67
10	28.19	35.95	23.07	4.69
20	28.15	35.95	23.08	4.67
30	25.96	36.13	23.92	4.63
50	22.39	36.33	25.14	4.39
75	19.42	36.31	25.93	3.78

STATION 72

DATE Aug. 12, 1953 LAT. 33°50'N. LONG. 75°58'W. TIME 11
DEPTH 680 WIND 10 , 09 BAR. 21 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 9 , amt. 8 SEA: dir. 08 , amt. 4
SWELL: dir. 10 , amt. 4 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.70	36.07	22.99	4.73
7	28.67	36.04	22.98	4.62
14	28.70	36.04	22.97	4.64
35	28.22	36.12	23.19	4.71
71	24.60	36.24	24.42	4.55
107	-	36.22*	-	4.17
142	19.77	36.56	26.03	3.50
214	16.97	36.11	26.39	3.44

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.70	36.07	22.99	4.73
10	28.69	36.04	22.97	4.63
20	28.69	36.06	22.98	4.67
30	28.44	36.10	23.10	4.70
50	26.62	36.19	23.76	4.67
75	24.22	36.26	24.55	4.52
100	22.14	36.39	25.25	4.27
150	19.48	36.54	26.09	3.48
200	17.49	36.21	26.34	3.44

STATION 72

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.5	0.1	4.5	-	-
7	1.3	-	1.5	0.0	0.6
14	1.6	0.3	0.5	0.0	1.7
35	0.6	0.1	2.0	-	0.4
71	0.9	0.7	1.0	-	0.4
107	1.8	0.7	3.0	-	0.7
142	2.6	0.8	7.5	-	0.8
214	1.9	1.1	8.0	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.5	0.1	4.5	-	-
10	1.4	0.2	1.0	0.0	1.1
20	1.3	0.2	1.0	-	1.3
30	0.8	0.1	1.5	-	0.7
50	0.7	0.4	1.5	-	0.4
75	1.0	0.7	1.0	-	0.4
100	1.6	0.7	2.5	-	0.6
150	2.5	0.8	7.5	-	0.8
200	2.0	1.0	8.0	-	0.7

STATION 75

DATE Aug. 12, 1953 LAT. 34°36'N. LONG. 75°53'W. TIME 18
DEPTH 40 WIND 5 , 10 BAR. 21 AIR TEMP: dry 25.6°C, wet 23.9°C
HUMIDITY 87% WEATHER 63 CLOUDS: type - , amt. 9 SEA: dir. 10 , amt. 3
SWELL: dir. 10 , amt. 3 VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.31	35.88	22.98	4.93
10	28.31	35.90	22.99	4.82
20	28.43	36.06	23.07	4.91
30	25.12	36.27	24.28	4.82

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.31	35.88	22.98	4.93
10	28.31	35.90	22.99	4.82
20	28.43	36.06	23.07	4.91
30	25.12	36.27	24.28	4.82

STATION 76

DATE Aug. 12, 1953 LAT. 34°53'N. LONG. 76°09'W. TIME 21
DEPTH 18 WIND 7 , 06 BAR. 19 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER - CLOUDS: type - , amt. - SEA: dir. 07 , amt. 4
SWELL: dir. 10 , amt. 3 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.34	35.75	23.19	4.91
10	27.25	35.83	23.28	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.34	35.75	23.19	4.91
10	27.25	35.83	23.28	4.86

STATION 76

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	-	1.0	2.6	0.8
10	0.6	-	5.0	-	2.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	-	1.0	2.6	0.8
10	0.6	-	5.0	-	2.1

STATION 77

DATE Aug. 12, 1953 LAT. 35°01'N. LONG. 75°45'W. TIME 24
DEPTH 22 WIND 2 , 10 BAR. 21 AIR TEMP: dry 23.9°C, wet 23.3°C
HUMIDITY 95% WEATHER 21 CLOUDS: type 7 , amt. 8 SEA: dir. - , amt. -
SWELL: dir. 14 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.15	35.59	23.14	4.66
10	27.23	35.84	23.30	4.57
20	26.94	36.11	23.59	4.76

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.15	35.59	23.14	4.66
10	27.23	35.84	23.30	4.57
20	26.94	36.11	23.59	4.76

STATION Standard 1

DATE July 18, 1953 LAT. 26°21'N. LONG. 76°46'W. TIME 22

DEPTH 4013 WIND S , 12 BAR. - AIR TEMP: dry 27.2°C, wet 26.1°C

HUMIDITY 91% WEATHER 03 CLOUDS: type S , amt. 4 SEA: dir. 14 , amt. 2

SWELL: dir. 14 , amt. 2 VIS. T WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.09	36.51	23.52	4.76
9	27.92	36.49	23.56	4.70
48	24.97	36.69	24.65	4.97
96	22.72	36.74	25.35	5.09
145	20.56	36.67	25.90	4.86
193	19.48	36.64	26.17	5.05
291	18.26	36.53	26.40	4.86
390	17.54	36.44	26.51	4.65
489	16.06	36.24	26.70	4.21
589	13.77	35.86	26.92	4.03
689	11.18	35.48	27.13	3.65
789	8.75	35.19	27.33	3.53
989	5.68	35.08	27.68	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.09	36.51	23.52	4.76
10	27.83	36.50	23.60	4.71
20	26.99	36.56	23.92	4.79
30	26.21	36.62	24.21	4.86
50	24.87	36.69	24.68	4.98
75	23.69	36.73	25.06	5.05
100	22.50	36.73	25.41	5.06
150	20.43	36.67	25.94	4.87
200	19.38	36.63	26.19	5.04
250	18.71	36.57	26.31	4.94
300	18.19	36.52	26.41	4.85
400	17.43	36.43	26.52	4.59
500	15.82	36.20	26.73	4.18
600	13.48	35.81	26.94	3.98
800	8.52	35.17	27.35	-

STATION Standard 2

DATE July 18, 1953 LAT. 26°21'N. LONG. 76°46'W. TIME 24
DEPTH 4206 WIND 3 , 14 BAR. 18 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 01 CLOUDS: type 8 , amt. 3 SEA: dir. 14 , amt. 1
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.12	36.51	23.51	4.53
10	28.12	36.47	23.48	4.16
50	25.17	36.70	24.59	-
100	22.62	36.69	25.34	4.98
150	20.51	36.71	25.95	4.92
200	19.29	36.64	26.22	4.88
300	18.26	36.55	26.41	4.78
400	17.67	36.47	26.50	4.68
500	15.82	36.17	26.71	4.41
600	13.64	35.81	26.91	4.04
700	11.07	35.43	27.12	3.59
800	8.61	35.19	27.35	3.57
1000	5.46	35.05	27.68	5.29

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.12	36.51	23.51	4.53
10	28.12	36.47	23.48	4.16
20	27.31	36.55	23.81	4.31
30	26.54	36.61	24.10	4.45
50	25.17	36.70	24.59	4.67
75	23.84	36.69	24.99	4.87
100	22.62	36.69	25.34	4.98
150	20.51	36.71	25.95	4.92
200	19.29	36.64	26.22	4.88
250	18.72	36.59	26.33	4.83
300	18.26	36.55	26.41	4.78
400	17.67	36.47	26.50	4.68
500	15.82	36.17	26.71	4.41
600	13.64	35.81	26.91	4.04
800	8.61	35.19	27.35	3.57
1000	5.46	35.05	27.68	5.29

STATION Standard 3

DATE July 19, 1953 LAT. 26°23'N. LONG. 76°46'W. TIME 04
DEPTH 4206 WIND 3 , 14 BAR. 19 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 14 , amt. 1
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.17	36.26	23.31	4.62
9	28.11	36.45	23.47	4.68
44	26.00	36.71	24.34	4.86
88	22.87	36.69	25.27	5.05
132	20.84	36.64	25.80	5.02
177	19.76	36.67	26.12	4.78
266	18.57	36.56	26.34	4.64
357	17.99	36.53	26.46	4.56
449	16.85	36.31	26.57	4.62
542	14.92	36.02	26.79	3.91
637	12.59	35.68	27.02	3.60
735	9.86	35.33	27.25	3.24
934	5.90	35.06	27.63	4.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.17	36.26	23.31	4.62
10	28.05	36.46	23.50	4.69
20	27.48	36.56	23.76	4.74
30	26.88	36.64	24.01	4.79
50	25.54	36.71	24.49	4.90
75	23.73	36.70	25.03	5.02
100	21.99	36.67	25.51	5.05
150	20.36	36.66	25.95	4.91
200	19.39	36.63	26.18	4.74
250	18.74	36.57	26.30	4.66
300	18.42	36.55	26.37	4.59
400	17.55	36.44	26.50	4.60
500	15.83	36.16	26.70	4.18
600	13.53	35.81	26.93	3.73
800	8.33	35.21	27.41	3.38

STATION Standard 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	0.1	1.5	-	0.7
9	0.8	0.4	25.0*	-	0.7
44	0.8	<0.1	0.0	-	0.9
88	1.6	0.4	0.5	-	0.8
132	1.4	<0.1	0.0	2.8	0.3
177	0.8	0.1	2.0	1.4	0.4
266	1.3	0.2	1.5	2.7	1.4
357	0.7	0.2	1.5	2.6	0.6
449	1.5	0.5	5.5	-	-
542	1.8	0.7	3.5	-	1.7
637	1.7	1.2	15.5	3.7	0.5
735	3.2	1.5	8.0	0.5	1.1
934	1.6	1.6	7.0	-	0.6

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	0.1	1.5	-	0.7
10	0.8	0.4	-	-	0.7
20	0.8	0.3	-	-	0.8
30	0.8	0.2	-	-	0.8
50	0.9	0.1	0.0	-	0.9
75	1.4	0.3	0.5	-	0.8
100	1.5	0.3	0.5	-	0.7
150	1.2	0.1	1.0	2.3	0.3
200	0.9	0.1	2.0	1.7	0.7
250	1.2	0.2	1.5	2.5	1.2
300	1.1	0.2	1.5	2.7	1.1
400	1.1	0.3	3.5	2.8	0.9
500	1.7	0.6	4.5	3.2	1.4
600	1.7	1.0	11.0	3.6	1.0
700	2.7	1.4	10.5	1.7	0.9
800	2.7	1.5	7.5	-	0.9

STATION Standard 4

DATE July 19, 1953 LAT. 26°23'N. LONG. 76°50'W. TIME 08
DEPTH 4006 WIND 2 , 15 BAR. 20 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 01 CLOUDS: type - , amt. - SEA: dir. 14 , amt. 1
SWELL: dir. 14 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.09	36.20	23.29	4.58
9	27.96	36.42	23.50	4.62
48	26.01	36.71	24.34	4.87
96	22.95	36.70	25.26	5.06
145	20.84	36.61	25.78	5.03
194	19.68	36.58	26.07	4.88
292	18.36*	36.55*	26.39	4.64
390	17.72	36.45	26.47	4.56
488	16.15	36.36	26.78	-
587	13.87	36.09	27.07	-
685	11.36	35.48	27.10	3.42
784*	18.93	36.62	26.29	4.64
992*	17.94	36.49	26.44	4.68

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.09	36.20	23.29	4.58
10	27.92	36.43	23.52	4.63
20	27.46	36.53	23.74	4.70
30	26.97	36.61	23.96	4.77
50	25.86	36.71	24.39	4.88
75	24.17	36.71	24.90	5.00
100	22.74	36.69	25.31	5.06
150	20.71	36.61	25.82	5.01
200	19.58	36.58	26.10	4.86
250	19.04	36.54	26.20	4.72
300	18.60	36.52	26.30	4.63
400	17.59	36.45	26.50	4.51
500	15.89	36.35	26.83	4.13
600	13.55	36.03	27.09	3.74

STATION Standard 5

DATE July 19, 1953 LAT. 26°20'N. LONG. 76°46'W. TIME 12
DEPTH 4206 WIND 2 , 14 BAR. 20 AIR TEMP: dry 28.9°C, wet 25.6°C
HUMIDITY 77% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 14 , amt. 1
SWELL: dir. 14 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.01	36.44	23.50	4.93
10	28.00	36.44	23.50	4.87
50	25.81	36.65	24.36	-
100	22.24	36.65	25.42	5.67*
150	20.47	36.67	25.93	4.72
200	19.24	36.62	26.21	4.46
300	18.19	36.53	26.41	4.56
400	17.47	36.42	26.51	4.60
500	15.70*	36.17	26.73	4.13
600	13.92	35.85	26.88	3.87
700	10.94	35.48	27.18	3.40
800	8.45*	35.16*	27.35	3.34
1000	5.53	35.05	27.67	4.88

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.01	36.44	23.50	4.93
10	28.00	36.44	23.50	4.87
20	27.51	36.51	23.71	-
30	26.98	36.57	23.93	-
50	25.81	36.65	24.36	-
75	23.80	36.65	24.97	-
100	22.24	36.65	25.42	-
150	20.47	36.67	25.93	4.72
200	19.24	36.62	26.21	4.46
250	18.67	36.58	26.33	4.52
300	18.19	36.53	26.41	4.56
400	17.47	36.42	26.51	4.60
500	15.98	36.17	26.67	4.13
600	13.92	35.85	26.88	3.87
800	8.86	35.28	27.38	3.34
1000	5.53	35.05	27.67	4.88

STATION Standard 6

DATE July 23, 1953 LAT. 26°19'N. LONG. 76°45'W. TIME 10
DEPTH 4206 WIND 6 , 10 BAR. 17 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 03 CLOUDS: type - , amt. - SEA: dir. 11 , amt. 2
SWELL: dir. 11 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.27	36.42	23.39	4.64
10	28.30	36.42	23.38	4.54
50	25.40	36.67	24.50	4.61
100	22.25	36.69	25.45	4.78
150	20.40	36.60	25.89	4.47
200	19.45	36.60	26.14	4.54
300	18.28	36.53	26.39	4.54
400	17.61	36.43	26.48	4.36
500	15.93	36.17	26.68	3.99
600	14.11	35.86	26.85	3.65
700	11.55	35.47	27.06	3.16
800	8.96	35.19	27.29	3.16
1000	5.65	35.05	27.66	4.68

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.27	36.42	23.39	4.64
10	28.30	36.42	23.38	4.54
20	27.54	36.50	23.69	4.55
30	26.81	36,57	23.98	4.57
50	25.40	36.67	24.50	4.61
75	23.66	36.69	25.04	4.70
100	22.25	36.69	25.45	4.78
150	20.40	36.60	25.89	4.47
200	19.45	36.60	26.14	4.54
250	18.80	36.57	26.29	4.54
300	18.28	36.53	26.39	4.54
400	17.61	36.43	26.48	4.36
500	15.93	36.17	26.68	3.99
600	14.11	35.86	26.85	3.65
800	8.96	35.19	27.29	3.16
1000	5.65	35.05	27.66	4.68

STATION Standard 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.0	1.5	-	-
10	0.5	<0.1	1.0	-	0.8
50	0.8	0.3	0.5	-	1.0
100	1.0	0.1	1.0	0.7	0.6
150	-	0.0	2.5	-	1.5
200	1.4	0.1	1.5	-	0.7
300	1.1	0.2	2.0	-	0.5
400	1.0	0.5	3.5	-	0.4
500	2.5	0.7	6.5	1.8	0.6
600	1.7	0.9	11.5	-	1.1
700	2.3	-	6.5	0.9	1.1
800	2.5	1.2	1.5	-	-
1000	1.7	1.5	4.0	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.0	1.5	-	-
10	0.5	<0.1	1.0	-	0.8
20	0.6	0.1	1.0	-	0.8
30	0.6	0.1	1.0	-	0.9
50	0.8	0.3	0.5	-	1.0
75	0.9	0.2	1.0	-	0.8
100	1.0	0.1	1.0	0.7	0.6
150	1.2	0.0	2.5	-	1.5
200	1.4	0.1	1.5	-	0.7
250	1.3	0.2	2.0	-	0.6
300	1.1	0.2	2.0	-	0.5
400	1.0	0.5	3.5	-	0.4
500	2.5	0.7	6.5	1.8	0.6
600	1.7	0.9	11.5	1.3	1.1
700	2.3	1.1	6.5	0.9	1.1
800	2.5	1.2	1.5	-	1.0
1000	1.7	1.5	4.0	-	0.8

STATION Standard 7

DATE July 23, 1953 LAT. 26°15'N. LONG. 76°45'W. TIME 12
DEPTH 4206 WIND 6 , 14 BAR. 19 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 20 CLOUDS: type 7 , amt. 8 SEA: dir. 14 , amt. 2
SWELL: dir. 11 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.29	36.42	23.39	-
9	28.29	36.44	23.40	4.72
47	25.69	36.60	24.36	4.70
94	22.22	36.69	25.46	4.98
142	20.48	36.64	25.90	5.02
188	19.46	36.63	26.16	4.80
283	18.37	36.55	26.38	4.80
378	17.71	36.45	26.47	4.62
475	16.23	36.23	26.66	4.00
572	14.28	35.90	26.84	3.86
671	12.03	35.57	27.04	3.62
770	9.35	35.26	27.28	3.54
970	5.81	35.08	27.66	4.50

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.29	36.42	23.39	-
10	28.22	36.45	23.43	4.72
20	27.56	36.49	23.68	4.71
30	26.88	36.54	23.94	4.70
50	25.42	36.61	24.45	4.72
75	23.41	36.67	25.10	4.91
100	21.97	36.68	25.52	4.99
150	20.29	36.64	25.95	5.00
200	19.29	36.62	26.20	4.80
250	18.66	36.58	26.33	4.80
300	18.14	36.54	26.43	4.78
400	17.40	36.41	26.52	4.50
500	15.78	36.14	26.69	3.97
600	13.69	35.80	26.89	3.80
800	8.66	35.19	27.34	3.58

STATION Standard 8

DATE July 23, 1953 LAT. 26°17'N. LONG. 76°45'W. TIME 15
DEPTH 4114 WIND 5 , 14 BAR. 20 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 20 CLOUDS: type 7 , amt. 8 SEA: dir. 14 , amt. 2
SWELL: dir. 11 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.51	36.11	23.08	4.70
9	28.50	36.15	23.12	4.64
45	27.07	36.51	23.85	4.70
91	23.43	36.73	25.14	5.11
136	21.65	36.65	25.59	5.08
183	19.99	36.64	26.03	4.88
279	18.73	36.23*	26.05	4.73

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.51	36.11	23.08	4.70
10	28.48	36.16	23.13	4.64
20	28.20	36.28	23.31	4.65
30	27.82	36.38	23.51	4.66
50	26.59	36.55	24.04	4.74
75	24.49	36.69	24.79	4.97
100	23.06	36.71	25.23	5.12
150	21.08	36.64	25.74	5.01
200	19.75	-	-	4.85
250	19.09	-	-	4.77

STATION Standard 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.2	0.0	3.6	-
9	0.7	0.1	0.5	-	1.4
45	1.4	0.2	6.0	-	5.8
91	1.5	0.3	<0.5	-	-
136	1.9	0.0	0.5	0.1	0.9
183	1.0	<0.1	1.5	0.0	6.6
279	-	<0.1	1.0	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.2	0.0	3.6	-
10	0.7	0.1	0.5	-	1.4
20	0.9	0.1	2.0	-	2.7
30	1.1	0.2	4.0	-	4.0
50	1.4	0.2	5.5	-	5.5
75	1.5	0.3	2.0	-	4.2
100	1.6	0.2	<0.5	-	2.8
150	1.6	<0.1	1.0	<0.1	2.6
200	-	<0.1	1.5	-	5.5
250	-	<0.1	1.0	-	2.5

STATION Standard 9

DATE July 23, 1953 LAT. 26°19'N. LONG. 76°45'W. TIME 21
DEPTH 4206 WIND 4 , 18 BAR. 18 AIR TEMP: dry 29.4°C, wet 27.2°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 8 , amt. 8 SEA: dir. 16 , amt. 3
SWELL: dir. 14 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.52	36.23	23.17	4.44
9	28.41	36.24	23.21	4.62
49	26.00	36.64	24.29	4.96
99	22.55	36.74	25.40	5.18
148	21.07	36.64	25.74	4.96
197	19.46	36.64	26.17	4.86
297	18.29	36.47	26.34	4.72
394	17.69	36.36	26.41	4.56
495	16.03	36.13	26.63	4.16
595	13.79	35.75	26.83	3.85
695	11.53	35.43	27.03	3.44
794	8.66	35.11	27.28	3.36
994	5.62	34.99	27.61	4.97

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.52	36.23	23.17	4.44
10	28.35	36.25	23.24	4.63
20	27.78	36.38	23.53	4.70
30	27.18	36.49	23.80	4.80
50	25.91	36.64	24.32	4.97
75	23.96	36.72	24.97	5.08
100	22.52	36.74	25.41	5.17
150	20.99	36.64	25.76	4.96
200	19.42	36.63	26.18	4.85
250	18.77	36.54	26.27	4.78
300	18.29	36.47	26.34	4.72
400	17.61	36.35	26.42	4.53
500	15.92	36.11	26.64	4.15
600	13.69	35.73	26.83	3.82
800	8.52	35.10	27.29	3.37

STATION Standard 10

DATE July 23, 1953 LAT. 26°19'N. LONG. 76°45'W. TIME 24
DEPTH 4206 WIND 4 , 16 BAR. 18 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 02 CLOUDS: type 3 , amt. 6 SEA: dir. 16 , amt. 2
SWELL: dir. 14 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.45	36.09	23.09	4.62
10	28.46	36.08	23.08	4.64
50	26.18	36.53	24.15	4.88
100	22.63	36.65	25.31	5.18
150	20.75	36.56	25.77	4.85
200	19.41	36.55	26.12	4.88
300	18.30	36.48	26.35	5.14*
400	17.67	36.40	26.44	4.56
500	15.87	36.11	26.65	4.16
600	13.58	35.75	26.87	3.84
700	11.09	35.39	27.08	3.44
800	8.38	35.08	27.30	3.41
1000	5.44	34.98	27.63	5.12

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.45	36.09	23.09	4.62
10	28.46	36.08	23.08	4.64
20	28.02	36.22	23.33	4.70
30	27.47	36.34	23.60	4.76
50	26.18	36.53	24.15	4.88
75	24.27	36.62	24.81	5.11
100	22.63	36.65	25.31	5.18
150	20.75	36.56	25.77	4.85
200	19.41	36.55	26.12	4.88
250	18.61	36.51	26.29	4.88
300	18.30	36.48	26.35	4.87
400	17.67	36.40	26.44	4.56
500	15.87	36.11	26.65	4.16
600	13.58	35.75	26.87	3.84
800	8.38	35.08	27.30	3.41
1000	5.44	34.98	27.63	5.12

STATION Standard 11

DATE July 24, 1953 LAT. 26°21'N. LONG. 76°41'W. TIME 03
DEPTH 4206 WIND 16 , 30 BAR. 21 AIR TEMP: dry 24.4°C, wet 23.3°C
HUMIDITY 91% WEATHER 21 CLOUDS: type 7 , amt. 9 SEA: dir. 30 , amt. 4
SWELL: dir. - , amt. - VIS. 4 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.36	36.26	23.24	4.54
6	28.34	36.27	23.26	4.56
34	27.94	36.36	23.46	4.64
72	23.97	36.64	24.91	5.14
110	22.36	36.67	25.40	5.10
150	21.26	36.62	25.67	4.96
232	19.67	36.56	26.06	4.76
316	18.49	36.47	26.29	4.66
402	18.05	36.45	26.39	4.76
490	16.69	36.23	26.55	4.26
578	14.82	35.95	26.76	3.98
665	12.32	35.58	27.00	3.66
842	7.92	35.10	27.38	3.62*

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.36	36.26	23.24	4.54
10	28.30	36.28	23.28	4.56
20	28.20	36.30	23.33	4.57
30	28.02	36.34	23.42	4.61
50	26.45	36.51	24.05	4.93
75	23.82	36.64	24.96	5.14
100	22.73	36.67	25.30	5.12
150	21.26	36.62	25.67	4.96
200	20.24	36.59	25.93	4.83
250	19.35	36.53	26.12	4.72
300	18.66	36.48	26.26	4.66
400	18.07	36.45	26.38	4.76
500	16.50	36.20	26.57	4.23
600	14.17	35.86	26.83	3.88
800	8.88	35.14	27.27	-

STATION Standard 12

DATE July 24, 1953 LAT. 26°20'N. LONG. 76°43'W. TIME 07
DEPTH 4571 WIND 4 , 25 BAR. 17 AIR TEMP: dry 25.6°C, wet 23.9°C
HUMIDITY 87% WEATHER 01 CLOUDS: type - , amt. - SEA: dir. 24 , amt. 2
SWELL: dir. 21 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.24	36.29	23.31	-
9	28.22	36.31	23.33	4.66
48	24.83	36.62	24.64	5.12
97	22.25	36.64	25.41	5.22
145	20.55	36.58	25.84	4.96
193	19.54	36.56	26.09	4.90
290	18.34	36.49	26.35	4.80
388	17.76	36.42	26.44	4.74
487	16.22	36.18	26.62	4.38
586	14.04	35.83	26.84	3.90
685	11.53	35.44	27.04	3.46
784	9.45	35.23	27.24	3.32
983	5.81	35.02	27.61	4.82

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.24	36.29	23.31	-
10	28.12	36.32	23.37	4.68
20	27.14	36.42	23.76	4.82
30	26.25	36.51	24.11	4.95
50	24.71	36.62	24.67	5.13
75	23.30	36.64	25.11	5.22
100	22.12	36.64	25.45	5.20
150	20.43	36.58	25.87	4.95
200	19.43	36.55	26.11	4.89
250	18.76	36.52	26.26	4.84
300	18.32	36.49	26.35	4.79
400	17.61	36.40	26.46	4.70
500	15.96	36.14	26.65	4.32
600	13.68	35.77	26.87	3.82
800	9.13	35.20	27.27	3.35

STATION Standard 13

DATE July 24, 1953 LAT. 26°15'N. LONG. 76°49'W. TIME 10
DEPTH 4754 WIND 2 , 18 BAR. 16 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 2 , amt. 4 SEA: dir. - , amt. -
SWELL: dir. 09 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.26	36.20	23.23	4.66
10	28.30	36.26	23.26	4.61
48	25.19	36.60	24.51	5.04
96	22.26	36.64	25.41	5.08
144	20.84	36.58	25.76	4.94
192	19.62	36.53	26.05	4.97
287	18.43	36.49	26.32	4.74
382	17.86	36.44	26.43	4.78
475	16.66	36.26	26.58	4.33
568	14.51	35.90	26.79	4.05
661	11.96	35.52	27.02	3.60
753	9.75	35.25	27.21	3.36
935	5.87	35.00	27.59	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.26	36.20	23.23	4.66
10	28.30	36.26	23.26	4.61
20	27.41	36.38	23.65	4.76
30	26.58	36.47	23.98	4.88
50	25.04	36.60	24.56	5.05
75	23.36	36.63	25.08	5.08
100	22.13	36.63	25.44	5.06
150	20.66	36.57	25.80	4.95
200	19.50	36.53	26.08	4.94
250	18.82	36.51	26.24	4.80
300	18.39	36.49	26.33	4.78
400	17.70	36.42	26.45	4.68
500	16.12	36.17	26.64	4.27
600	13.60	35.76	26.88	3.87
800	8.69	35.15	27.30	3.49

STATION Standard 14

DATE July 24, 1953 LAT. 26°20'N. LONG. 76°46'W. TIME 13
DEPTH 4114 WIND 5 , 19 BAR. 18 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 81 % WEATHER 01 CLOUDS: type 6 , amt. 2 SEA: dir. 18 , amt. 2
SWELL: dir. 18 , amt. 1 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.35	35.91	22.98	5.48
8	28.35	35.91	22.98	4.54
24	27.78	36.44	23.57	4.67
68	25.00	36.64	24.60	5.02
101	22.80	-	-	5.00
134	21.76	36.64	25.55	4.98
203	19.60	36.57	26.08	4.78
271	18.56	36.51	26.30	4.74
340	18.06	36.44	26.38	4.76
411	17.40	36.34	26.46	4.38
480	16.06	36.13	26.62	4.14
552	14.42	35.86	26.78	3.91
700	9.62	35.21	27.00	3.34

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.35	35.91	22.98	5.48
10	28.19	36.17	23.23	4.56
20	27.86	36.36	23.48	4.64
30	27.38	36.48	23.73	4.75
50	25.96	36.60	24.27	4.94
75	24.15	36.64	24.86	5.01
100	22.95	36.64	25.21	5.00
150	21.09	36.63	25.73	4.92
200	19.68	36.58	26.07	4.79
250	18.82	36.53	26.25	4.75
300	18.36	36.48	26.33	4.75
400	17.52	36.36	26.45	4.43
500	15.70	36.07	26.66	4.08
600	13.14	35.68	26.91	3.74

STATION Standard 15

DATE July 24, 1953 LAT. 26°19'N. LONG. 76°47'W. TIME 17
DEPTH 4023 WIND 6 , 18 BAR. 18 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 64 CLOUDS: type 7 , amt. 8 SEA: dir. 18 , amt. 2
SWELL: dir. 18 , amt. 1 VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.59	35.94	22.93	4.68
9	28.42	35.93	22.98	4.66
49	27.36	36.47	23.73	4.81
97	23.28	36.65	25.12	5.12
146	21.34	36.58	25.62	4.93
194	19.76	36.55	26.02	4.84
291	18.42	36.47	26.31	4.83
388	17.68	36.43	26.46	4.63
484	16.11	36.15	26.62	4.23
580	14.04	35.81	26.82	3.91
676	11.56	35.41	27.01	3.49
771	9.12	35.19	27.27	3.44
961	5.62	34.99	27.61	4.93

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.59	35.94	22.93	4.68
10	28.40	35.95	23.00	4.66
20	28.12	36.11	23.21	4.69
30	27.85	36.29	23.43	4.73
50	27.25	36.48	23.77	4.82
75	24.88	36.60	24.61	5.04
100	23.15	36.64	25.15	5.11
150	21.19	36.58	25.66	4.92
200	19.66	36.54	26.04	4.84
250	18.91	36.50	26.21	4.84
300	18.39	36.47	26.32	4.82
400	17.51	36.40	26.48	4.58
500	15.79	36.10	26.66	4.18
600	13.52	35.71	26.85	3.79
800	8.47	35.14	27.33	3.53

STATION Standard 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.4	0.0	-	0.1
9	0.6	0.1	2.0	-	0.9
49	0.8	0.1	1.0	0.0	1.5
97	0.7	0.1	0.0	-	1.3
146	1.0	0.1	<0.5	-	0.8
194	0.7	0.5	1.0	-	0.0
291	0.7	0.3	1.5	0.0	1.0
388	0.8	0.3	1.5	-	0.2
484	3.3	0.7	7.0	-	-
580	1.1	1.0	7.5	0.0	0.5
676	-	1.6	13.0	-	-
771	-	1.7	2.0*	0.5	0.8
961	2.3	1.4	11.5	-	1.0

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.4	0.0	-	0.1
10	0.6	0.1	2.0	-	0.9
20	0.7	0.1	1.5	-	1.1
30	0.7	0.1	1.5	-	1.2
50	0.8	0.1	1.0	0.0	1.5
75	0.7	0.1	0.5	0.0	1.4
100	0.7	0.1	0.0	0.0	1.3
150	1.0	0.1	<0.5	0.0	0.7
200	0.7	0.5	1.0	0.0	0.0
250	0.7	0.4	1.5	0.0	0.6
300	0.7	0.3	1.5	0.0	0.9
400	1.1	0.3	2.0	0.0	0.2
500	2.9	0.7	7.0	0.0	0.4
600	1.2	1.1	8.5	<0.1	0.5
700	1.5	1.6	13.0	0.3	0.7
800	1.8	1.7	12.5	0.5	0.8

STATION Special 5

DATE July 17, 1953 LAT. 30°00'N. LONG. 77°00'W. TIME 03
DEPTH 1006 WIND 4 , 14 BAR. 22 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 01 CLOUDS: type -, amt. - SEA: dir. 14, amt. 2
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.11	36.30	23.36	-
9	28.06	36.31	23.38	4.23
18	27.64	36.31	23.52	-
47	26.59	36.55	24.04	4.71
96	23.06	36.73	25.25	5.00
144	21.11	36.65	25.74	4.78
193	19.79	36.64	26.09	4.70
291	18.52	36.57	26.36	4.70
390	18.01	36.53	26.46	-
589	15.46	36.09	26.73	4.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.11	36.30	23.36	-
10	28.01	36.31	23.40	4.25
20	27.59	36.33	23.55	4.39
30	27.30	36.42	23.71	4.52
50	26.45	36.58	24.10	4.74
75	24.65	36.69	24.74	4.89
100	22.81	36.73	25.32	4.99
150	20.48	36.65	25.91	4.77
200	19.67	36.63	26.11	4.70
250	18.96	36.60	26.27	4.70
300	18.49	36.57	26.37	4.70
400	17.93	36.52	26.47	-
500	16.85	36.35	26.60	-

STATION Special 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.7	1.0	-	1.3
9	1.5	0.0	1.5	0.0	1.2
18	0.9	0.2	1.0	-	-
47	0.8	0.1	2.5	2.1	1.1
96	1.7	<0.1	<0.5	-	1.3
144	-	0.1	<0.5	0.1	0.1
193	0.6	0.3	2.0	1.6	0.6
291	0.7	0.2	2.5	-	0.8
390	0.9	0.6	3.0	2.1	0.7
589	1.8	0.7	9.5	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.7	1.0	-	1.3
10	1.5	0.0	1.5	0.0	1.2
20	0.9	0.2	1.0	0.6	1.2
30	0.9	0.2	1.5	1.2	1.1
50	0.9	0.1	2.5	2.0	1.1
75	1.3	0.1	1.0	1.5	1.2
100	1.6	<0.1	<0.5	1.0	1.2
150	1.1	0.1	0.5	0.3	0.2
200	0.6	0.3	2.0	1.6	0.6
250	0.7	0.2	2.5	1.8	0.7
300	0.7	0.2	2.5	1.9	0.8
400	0.9	0.6	3.5	2.1	0.7
500	1.4	0.7	6.5	-	0.5

STATION Special 6

DATE July 17, 1953 LAT. 29°00'N. LONG. 77°00'W. TIME 12
DEPTH 969 WIND 6 , 14 BAR. 21 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80 % WEATHER 03 CLOUDS: type 9 , amt. 2 SEA: dir. 14 , amt. 2
SWELL: dir. - , amt. - VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.96	36.24	23.36	4.58
10	27.92	36.24	23.37	4.63
19	27.65	36.24	23.46	4.68
47	24.25	36.60	24.80	5.02
95	22.69	36.65	25.29	5.09
142	20.89	36.69	25.83	4.90
190	19.71	36.67	26.13	4.67
288	18.56	36.56	26.34	4.62
487	16.84	36.35	26.61	4.70
586	-	36.09	-	4.13
686	13.34	35.75	26.92	-
785	10.98	35.43	27.13	3.39

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.96	36.24	23.36	4.58
10	27.92	36.24	23.37	4.63
20	27.50	36.26	23.53	4.70
30	26.10	36.41	24.09	4.78
50	24.16	36.60	24.82	5.03
75	23.37	36.63	25.08	5.07
100	22.47	36.66	25.36	5.07
150	20.67	36.69	25.89	4.90
200	19.58	36.66	26.16	4.65
250	18.98	36.60	26.27	4.63
300	18.40	36.56	26.38	4.62
400	17.59	36.45	26.50	4.66
500	16.66	36.32	26.63	4.64
600	15.06	36.04	26.78	4.06

STATION Special 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.4	<0.5	-	2.3
10	0.6	0.4	2.5	-	1.4
19	0.5	-	0.5	4.6	0.4
47	3.2	0.1	-	-	1.4
95	0.8	0.2	<0.5	2.8	0.0
142	1.4	0.4	0.0	0.3	0.1
190	-	0.1	1.0	0.0	1.1
288	1.0	0.4	2.0	-	0.9
487	1.7	1.0	5.5	-	0.9
586	1.3	0.6	2.5	-	0.5
686	1.6	1.3	10.0	-	0.8
785	1.9	1.2	10.0	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.4	<0.5	-	2.3
10	0.6	0.4	2.5	-	1.4
20	0.5	0.3	0.5	4.6	0.4
30	1.6	0.2	0.5	4.3	0.8
50	3.0	0.1	0.5	3.9	1.3
75	1.8	0.2	0.5	3.3	0.6
100	0.9	0.2	<0.5	2.5	0.0
150	1.4	0.4	<0.5	0.2	0.3
200	1.2	0.1	1.0	0.0	1.1
250	1.1	0.3	1.5	-	1.0
300	1.1	0.4	2.5	-	0.9
400	1.4	0.7	4.0	-	0.9
500	1.7	1.0	5.0	-	0.8
600	1.3	0.7	3.5	-	0.5
700	1.6	1.3	10.0	-	-

STATION Special 7

DATE July 17, 1953 LAT. 28°00'N. LONG. 77°00'W. TIME 22
DEPTH 1116 WIND 4 , 14 BAR. 19 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 3 , amt. 2 SEA: dir. 14 , amt. 2
SWELL: dir. - , amt. - VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.73	36.08	22.99	4.62
9	28.39	36.09	23.11	4.63
17	28.07	36.16	23.26	4.69
42	26.31	36.46	24.06	4.78
85	23.79	36.74	25.04	5.09
128	22.14	36.76	25.53	5.06
172	20.71	36.67	25.86	4.88
260	19.00	36.58	26.25	4.72
438	18.06	36.55	26.46	4.72
527	17.42	36.44	26.53	-
617	15.71	36.17	26.73	4.21
707	13.71	35.82	26.90	3.81

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.73	36.08	22.99	4.62
10	28.36	36.10	23.12	4.64
20	27.85	36.20	23.37	4.70
30	27.13	36.33	23.70	4.73
50	25.78	36.53	24.28	4.84
75	24.30	36.70	24.86	5.05
100	23.19	36.76	25.23	5.08
150	21.38	36.71	25.71	4.96
200	20.08	36.64	26.01	4.82
250	19.15	36.59	26.21	4.73
300	18.75	36.57	26.30	4.72
400	18.23	36.56	26.43	4.72
500	17.72	36.49	26.50	4.59
600	16.06	36.23	26.70	4.27

STATION Special 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	<0.1	0.5	-	1.1
9	1.2	0.4	0.0	-	1.3
17	0.9	0.1	0.0	-	1.4
42	1.0	0.3	0.0	-	1.2
85	0.6	0.3	0.0	0.0	0.0
128	1.1	0.2	1.0	0.2	1.6
172	0.9	0.2	0.0	-	0.8
260	1.9	0.1	1.5	-	0.8
438	0.7	0.3	1.0	0.0	0.3
527	2.6	0.7	5.0	0.0	1.2
617	1.3	1.4	10.0	-	0.4
707	1.3	1.0	2.0	0.1	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	<0.1	0.5	-	1.1
10	1.2	0.4	0.0	-	1.3
20	0.9	0.1	0.0	-	1.4
30	1.0	0.2	0.0	-	1.3
50	0.9	0.3	0.0	-	1.0
75	0.7	0.3	0.0	-	0.3
100	0.8	0.3	0.5	0.1	0.6
150	1.0	0.2	0.5	0.2	1.2
200	1.2	0.2	0.5	0.2	0.8
250	1.8	0.1	1.5	0.1	0.8
300	1.6	0.1	1.5	0.1	0.7
400	1.0	0.3	1.0	<0.1	0.4
500	2.0	0.6	4.0	0.0	0.9
600	1.5	1.3	9.0	<0.1	0.5
700	1.3	1.0	2.0	0.1	1.3

STATION Special 8

DATE July 18, 1953 LAT. 28°00'N. LONG. 78°00'W. TIME 06
DEPTH 1170 WIND 4 , 14 BAR. 20 AIR TEMP: dry - °C, wet - °C
HUMIDITY - % WEATHER 02 CLOUDS: type 3 , amt. 2 SEA: dir. 14 , amt. 2
SWELL: dir. 14 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.47	36.00	23.01	4.54
9	28.44	36.02	23.04	4.62
18	28.26	36.06	23.13	4.68
45	26.52	36.58	24.08	4.92
90	22.88	36.64	25.23	5.10
135	21.45	-	-	4.94
180	20.20	36.71	26.03	4.70
269	18.54	36.60	26.38	4.72
445	16.15	36.26	26.70	4.21
532	13.72	35.84	26.91	3.84
619	11.43	35.52	27.12	3.56
705	9.27	35.28	27.31	3.47

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.47	36.00	23.01	4.54
10	28.42	36.02	23.04	4.63
20	28.20	36.11	23.18	4.70
30	27.78	36.34	23.50	4.80
50	26.00	36.59	24.25	4.93
75	23.95	36.62	24.90	5.04
100	22.55	36.66	25.34	5.07
150	21.03	36.71	25.81	4.86
200	19.80	36.69	26.12	4.72
250	18.81	36.63	26.33	4.73
300	18.12	36.54	26.44	4.63
400	16.78	36.37	26.64	4.32
500	14.88	36.03	26.81	3.97
600	11.87	35.58	27.08	3.60

STATION Special 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.3	3.5	0.3	0.8
9	0.7	0.1	2.0	-	0.5
18	1.3	<0.1	0.5	-	1.4
45	-	0.9	0.0	-	1.0
90	0.1	<0.1	1.0	1.2	0.4
135	0.6	0.2	0.5	-	1.1
180	1.7	0.1	1.0	-	-
269	0.7	0.1	1.5	-	0.9
445	1.6	0.7	6.0	-	1.7
532	2.1	1.0	0.5*	-	-
619	2.7	-	12.5	-	-
705	2.7	1.5	13.5	-	0.4

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.3	3.5	0.3	0.8
10	0.7	0.1	2.0	-	0.5
20	1.3	0.1	0.5	-	1.4
30	1.1	0.4	0.5	-	1.2
50	0.8	0.8	<0.5	-	0.9
75	0.4	0.3	0.5	-	0.6
100	0.2	0.1	1.0	1.2	0.6
150	1.0	0.2	0.5	-	1.1
200	1.5	0.1	1.0	-	1.0
250	0.9	0.1	1.5	-	0.9
300	0.9	0.2	2.5	-	1.0
400	1.4	0.5	5.0	-	1.5
500	1.9	0.9	8.0	-	1.4
600	2.6	1.2	11.5	-	0.9
700	2.7	1.5	13.5	-	0.4

STATION Special 9

DATE July 26, 1953 LAT. 27°59' N. LONG. 79°00' W. TIME 18

DEPTH 887 WIND - , - BAR. - AIR TEMP: dry - °C, wet - °C

HUMIDITY - % WEATHER 02 CLOUDS: type 9, amt. 2 SEA: dir. - , amt. -

SWELL: dir. - , amt. - VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.81	35.84	22.78	4.05
9	28.70	35.82	22.80	4.05
18	28.61	35.84	22.85	4.07
44	27.56	36.00	23.31	4.21
89	25.29	36.26	24.22	3.80
135	23.17	36.56	25.09	3.33
180	21.30	36.60	25.65	4.20
274	18.83	36.54	26.26	4.07
370	18.07	36.45	26.38	4.05
468	17.43	36.35	26.46	3.89
664	12.93	35.64	26.92	3.20
763	11.14	35.41	27.09	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.81	35.84	22.78	4.05
10	28.70	35.82	22.80	4.05
20	28.54	35.85	22.88	4.09
30	28.15	35.91	23.05	4.13
50	27.25	36.03	23.43	4.19
75	25.98	36.18	23.95	3.93
100	24.76	36.36	24.46	3.64
150	22.50	36.58	25.29	3.67
200	20.63	36.59	25.82	4.16
250	19.30	36.56	26.15	4.09
300	18.61	36.52	26.30	4.08
400	17.87	36.42	26.41	4.01
500	17.00	36.27	26.51	3.79
600	14.60	35.88	26.76	3.45

STATION Special 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.9	0.6	0.0	1.1	0.1
9	1.5	0.1	0.5	-	1.6
18	0.5	0.1	0.0	7.0	-
44	2.1	0.3	0.0	-	0.9
89	1.4	0.1	<0.5	0.5	0.1
135	1.3	-	2.0	-	0.4
180	1.0	0.2	2.5	2.8	1.2
274	2.4	<0.1	2.5	-	-
370	2.5	0.7	2.0	2.8	1.5
468	1.3	0.4	4.0	0.0	1.2
664	1.2	1.3	1.0	-	0.6
763	-	1.9	8.5	2.3	1.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.9	0.6	0.0	1.1	0.1
10	1.5	0.1	0.5	4.5	1.6
20	0.6	0.1	0.0	6.8	1.4
30	1.2	0.2	0.0	5.9	1.2
50	2.0	0.3	0.0	4.0	0.8
75	1.6	0.2	<0.5	1.8	0.3
100	1.4	0.1	0.5	0.8	0.2
150	1.2	0.2	2.0	2.0	0.7
200	1.3	0.2	2.5	2.8	1.2
250	2.0	0.1	2.5	2.8	1.3
300	2.4	0.2	2.5	2.8	1.4
400	2.1	0.6	2.5	2.0	1.4
500	1.3	0.5	3.5	0.3	1.1
600	1.2	1.0	2.0	1.0	0.8
700	-	1.5	3.5	1.8	1.1